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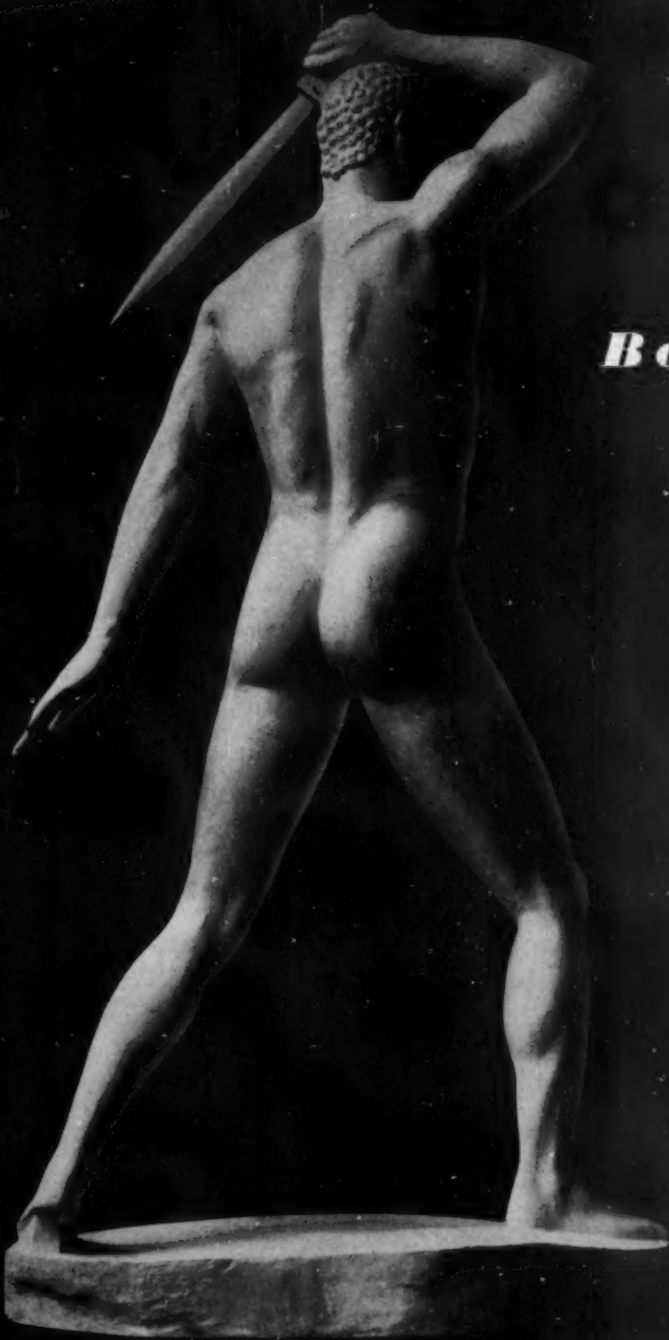
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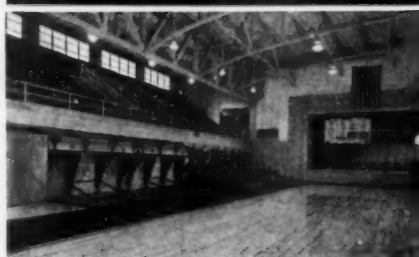


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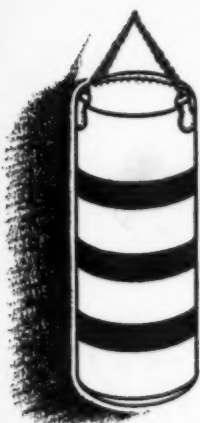


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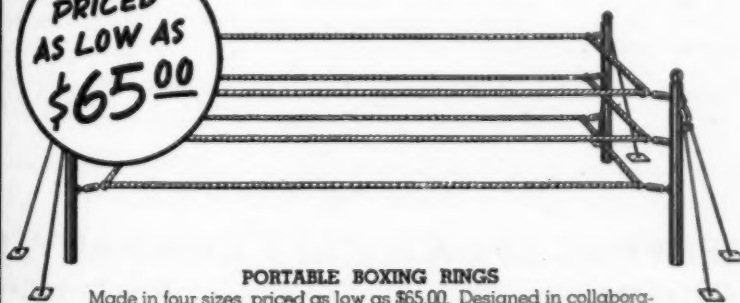
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SCREEN ESCAPES IN THE BACKCOURT

By Griffith C. O'Dell

Before assuming the basketball coachship at Rochester, Minn., Griffith C. O'Dell was an all-state guard on four Hamline University conference-championship teams.

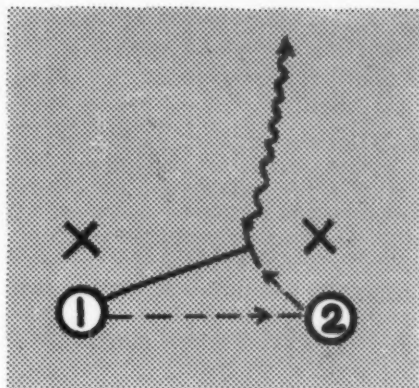
ONE of the most tormenting problems of the guards, or whoever are responsible for working the ball up the floor into the frontcourt, is escaping opponents who insist upon pressing them in the backcourt.

While few teams use the all-court defense for the full 32 minutes, almost every quintet will spring such a defense when behind in score with little time remaining. Many teams use it as a surprise package at propitious moments. Always, when it's sprung, it plunges the ball-handlers into a "sea of troubles."

Unless they're exceptionally capable ball-handlers, dribblers and passers, they may disrupt the offensive continuity with a hurried pass, lose outright possession, or have the ball tied up.

The solution lies in a series of screen traps of the type shown in the accompanying diagrams. These escapes will provide relief for the

Working the ball up the floor against opponents who press all over the court



Diag. 3

average guards. The screens are of two types: first, the kind in which the passing guard screens on the inside of his teammate; and the other in which he provokes the screen by running on the outside.

An illustration of an inside screen is shown in **Diag. 1**. No. 1 passes to 2, follows his pass and sets up a screen on X2. The receiver, 2, drives around with a dribble.

Against teams well versed in switching, the problem naturally is tougher. But the switch is vulnerable to what may be called the roll or continuation screen.

The maneuver is shown in **Diag. 2**. No. 1, as before, passes and sets up an inside screen on X2. The receiver dribbles around but X1 switches to cover him. The screener, 1, having position on X2, immediately cuts for the basket. He receives a pass from 1 and may either dribble in for a score or return pass to 2 if X1 comes over to pick him up.

A refinement of the play is illustrated in **Diag. 3**. As in the preceding maneuvers, 1 passes to 2 and screens. The latter starts his dribble but actually bounce passes to 1. No. 1 fakes

to 2 cutting by and turns in the same direction, presenting his back to X2. X1 switches to 2, leaving 1 open for a dribble in to the basket.

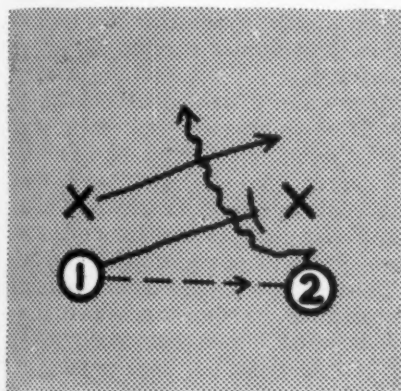
The outside screen is worked in similar fashion. In **Diag. 4**, 1 passes to 2 and breaks fast around the outside. The receiver return passes (a hand-off or a flip) and 1 dribbles in. X1 will usually be screened out by his teammate, X2.

In the event the opponents switch, 2 may fake the return pass, pivot sharply to his right and dribble in (**Diag. 5**).

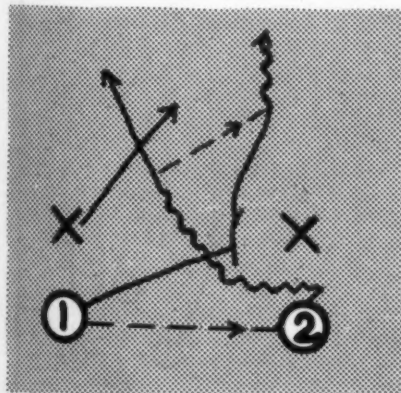
If the defense appears to be set for a switch (**Diag. 6**), 1 may pass to 2 and run on the outside as before. The receiver fakes to the cutter and dribbles in the same direction. X2 will usually follow 1 and X1 will hesitate momentarily, anticipating a play that does not materialize, thus giving 2 a start toward the goal.

The effectiveness of these screens is enhanced where the offensive players run as close to each other as possible. This enables the receiver to hand rather than flip the ball,

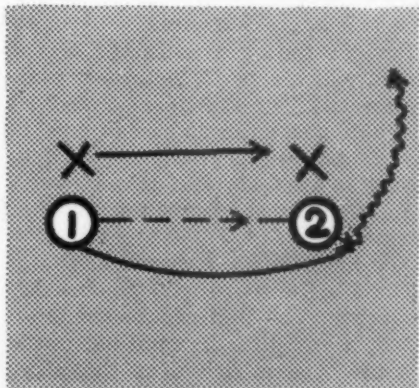
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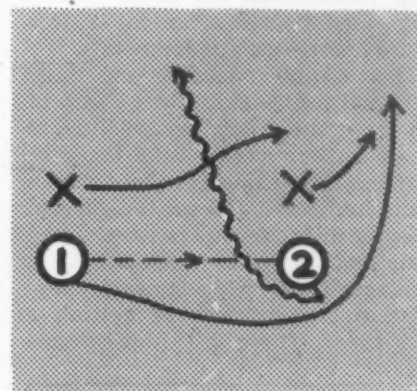
Diag. 1



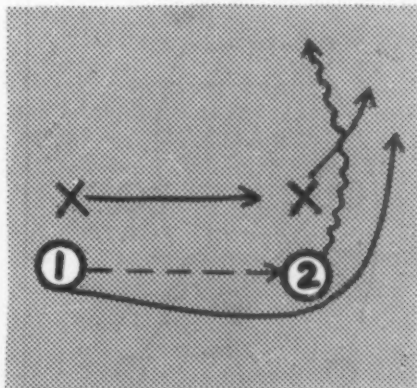
Diag. 2



Diag. 4



Diag. 5

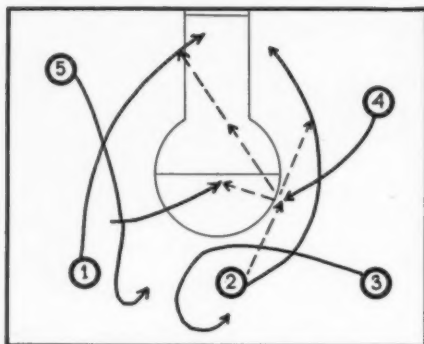


Diag. 6

AN ALL-PURPOSE KEYED OFFENSE

By Virgil J. Noble

A series of plays, based on the same pattern, which can function from any part of the floor



Diag. 1, Basic Setup

Something unique in the way of basketball attacks is presented here by Virgil J. Noble of South School, Saginaw, Mich.: a series of plays based on the same pattern with each play designed for a specific situation. Four years ago (December, 1937) E. R. Purdy of Rutland, Vt., High School outlined a similar idea in an article entitled, "The Unified All-Court Offense."

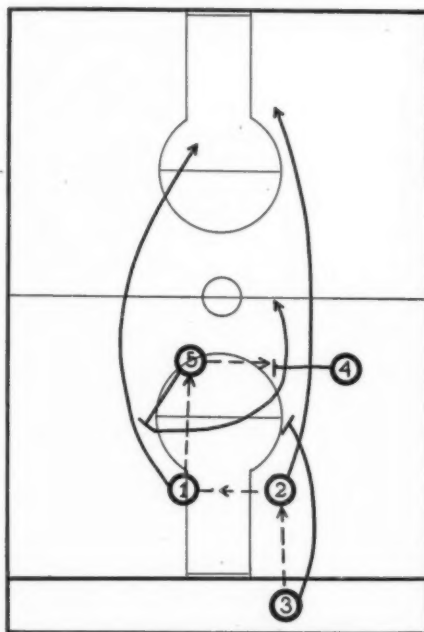
SCHOOLBOY coaches are, of necessity, foundation builders. Since they are working with boys between the ages of 14 and 19 who have had little or no previous tutoring, they must start from the very beginning. Before even thinking of the finer points, they must pound home the ABC's of the sport—the fundamentals.

This requisite course on basic skills naturally takes away much of the time the coach would like to spend on the timing and the mechanics of teamplay. For, even while he is laying down the general lines of his offense, he must stop time and again to demonstrate a fundamental bit of footwork or, perhaps, a certain trick of getting a pass away. These are things a col-

lege coach seldom has to contend with.

Experienced men meet this problem realistically. They go through the season concentrating on fundamentals and a few simple plays. Other coaches, especially those new at the business, try to cram in as many plays as they can, sacrificing quality, as represented by a few thoroughly assimilated plays, for quantity.

The All-Purpose Key Offense offers a simple but highly satisfactory solution to the problem. It consists of a few fundamentally strong plays,

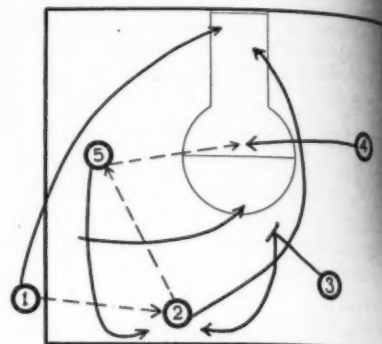


Diag. 5, After Goal

based on the same pattern, which can be quickly and thoroughly absorbed and which can function from any part of the court under all conditions: center jump, out-of-bounds ball, slow break, and down court when an aggressive defense is met.

Perfect timing is attained by a signal, which sets off the breaks and the screens. The system also affords adequate protection in case of a poor pass or an interception, and is designed so that at least two players are always in good position for the rebound.

The basic setup is shown in **Diag. 1**. No. 4 is the spark who touches off the break. The ball can be maneuvered in any direction, but not until 4 secures possession does the play pick up momentum. As soon as 4 comes into possession, 3 screens for



Diag. 3, Out of Bounds

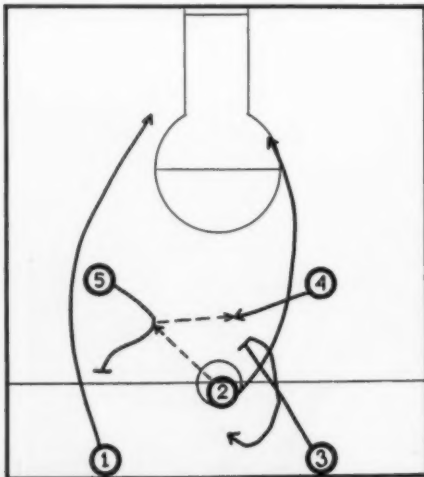
2 and 5 for 1. No. 4 may pass to either of the cutters; fake a pass and reverse for a dribble in; or pass to 5 who may break for the basket.

If all goes well 5 returns to the backcourt to assist 3 with the safety chores, while 1, 2 and 4 follow up off the board.

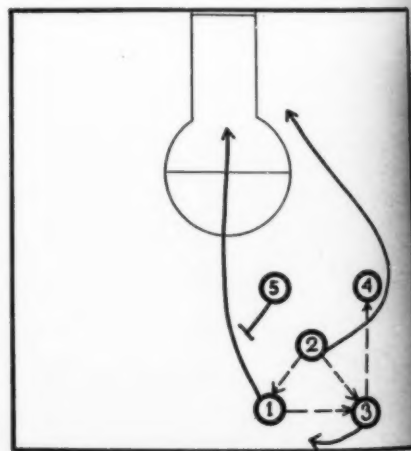
The pattern remains consistent in the other situations diagrammed in the series. In **Diag. 2**, for example, although the play develops from a center jump, the passing is almost the same. The center, 2, may tap the ball in any direction. In this particular situation he directs the tap to 5, who instantly whips it to 4, coming in, and moves over to set up a post for 1.

Meanwhile 3 has sneaked behind X2. After tipping the ball, 2 breaks down the outside, losing his man on the screen. No. 1 cuts down the other side, running X1 into 5. While 4 is passing off to the free man, 3 drops back to cover up. This type of play should be used only when you're sure of the tap, since the guards must leave their posts pre-

(Concluded on page 29)



Diag. 2, Center Tap



Diag. 4, Jump Ball



COACHING THE HIGH SCHOOL SOCCER TEAM

By David Weisberg and Edward Christian

This is the second of a series of two articles by the Trenton, N. J., Central High School men. David Weisberg teaches biology and coaches varsity soccer while Edward Christian serves as vocational guidance counselor and jayvee soccer coach. Under Weisberg, Trenton has won 87, tied 8 and lost only 4 in the past ten years. In their article last month, the authors covered the selection of the players and the teaching of the six fundamental skills involved in ball control.

THERE are two schools of thought on the subject of offensive play in soccer. Some coaches prefer the short passing game, while others abide by the long passing or kick-and-run type of soccer.

Teams with experienced personnel will probably derive more from the potentialities of the short passing game. Against this attack, the defense has less opportunity to gain possession of the ball and thus wear themselves out faster attempting to get it.

This mode of attack is also recommended against physically superior teams. The bigger boy will usually outrun and outhead the smaller player. By clinging tenaciously to the ball, the less physically gifted

team may offset the opponents' natural advantage.

Speed and control are the keystone of this attack. Upon relaying the ball to a teammate, the passer should immediately maneuver into position for a return pass, thus alleviating the defensive threat to the receiver.

It is also desirable to pass the ball from one side of the field to the other, rather than keep it entirely on the right or left side. When the ball is played back and forth, the defense cannot set themselves to break up the play.

The halfback line should come up

Above is shown a free kick, about the only time toe kicking is approved. Ordinarily the instep kick or the kick with the inside of the foot is preferred. The player almost comes over the ball. The foreleg swings back and then snaps forward. The toe meets the ball squarely, near the bottom, in order to raise it off the ground. In the strip below, the player is making a very fine head pass. As he goes up to play the ball, he draws his head slightly away. He then snaps it sideward to meet the leather, establishing contact on side of head.

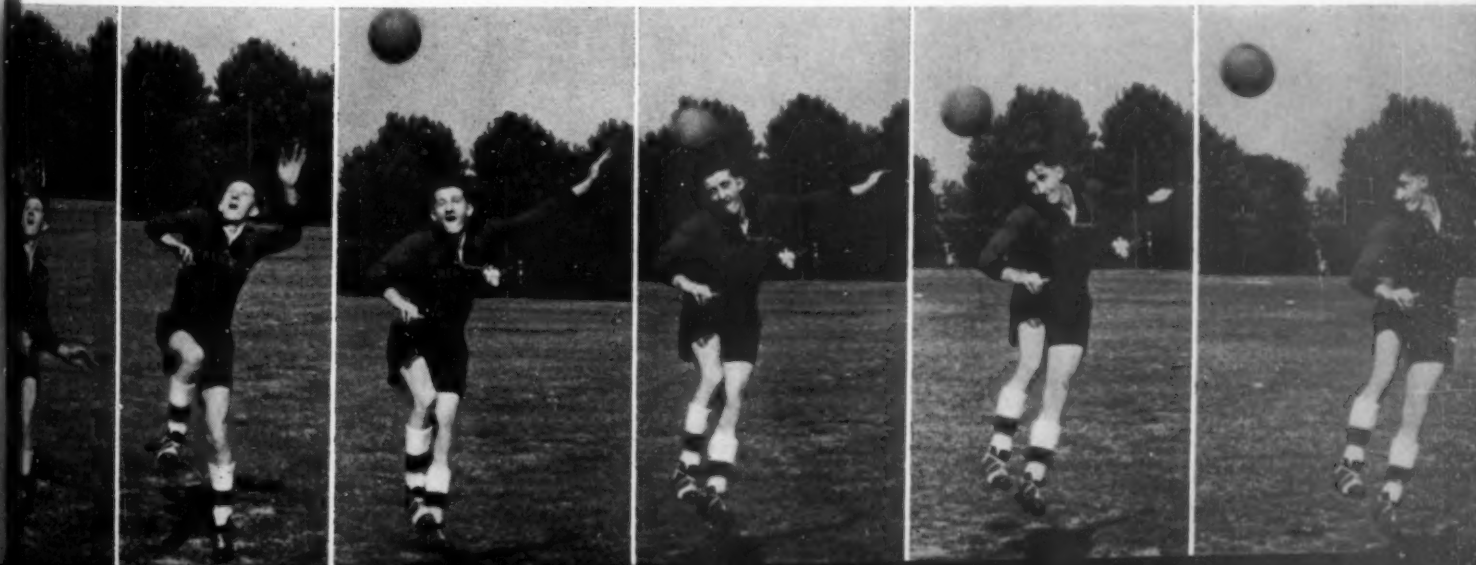
about ten or fifteen yards behind the forwards, in position for a backward pass. For, often, a forward cannot find a teammate in the open. The back pass releases the forward to maneuver for a return pass.

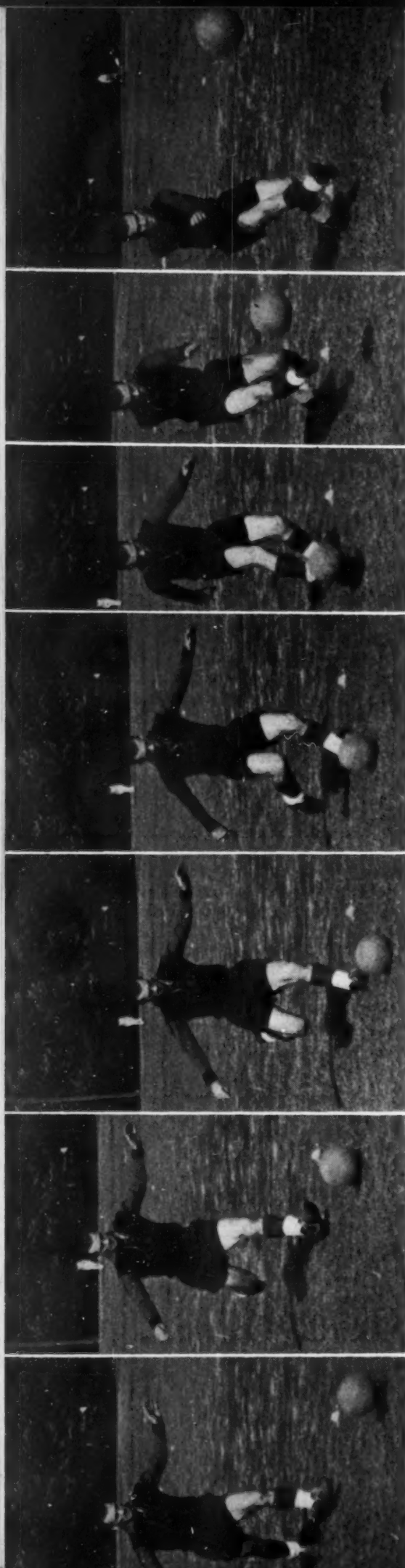
One of the fullbacks should likewise deploy into an offensive position. This can be done by moving the right fullback almost up to midfield if the play is on the right side and vice versa on plays to the left side. In this way the whole team is on the offensive with one fullback in position to return the ball quickly if the occasion warrants.

A W formation of the forward line lends itself well on offense. In this alignment, the two inside forwards play about ten yards behind the other three forwards, coming up only if a shot for the goal is in the making. The W formation is also very practical on defense and will be discussed later.

Long passing game

The second alternative on offense is the long passing or kick-and-run game. Its most popular use is by coaches with inexperienced opera-





tives. In the hands of tall, fast boys, it's a dangerous weapon.

The ball, however, should be kept away from the center of the field, as the opposing backfield, who are facing the ball, can easily return it. If the boys swing the ball from one side of the field to the other, the defending backfield must shift automatically and thus are out of position on passes down the center in front of the goal-mouth.

Penalty shots

The free kick and the penalty shots are both considered scoring measures. There are two types of penalty shots: namely, the place shot and the power shot. The ability to place the ball in the upper corners of the goal is very tough for anyone but an experienced penalty kicker.

The power shot is thus preferred, for even if the shot is directed toward the goalkeeper it is often difficult to handle and may be deflected into the goal. This shot should be taken with the instep, as more power and ball control can thus be attained. The shot may be taken with either foot and directed toward either corner of the goal, depending upon the foot the shot is taken with.

For purposes of deception, the kicker may look at one side of the goal-mouth and kick toward the opposite side.

The free kick usually should be passed to an open man or to a predetermined spot from which a shot at the goal may be made. If the free kick occurs just outside the penalty area, a direct shot may be advisable.

Defensive play

A team that cannot get a direct shot at the goal cannot score. The best way to block the direct routes to the goal is by using a shifting backfield. We try to do this in the following way: If the play is on the right side of the field, our left half-back goes in to meet the play, the

(Concluded on page 40)

Left: In this instep kick, or blast shot, the player meets the ball as it rolls toward him. The leg is snapped forward powerfully from the knee, with the foot extended at contact. The player hits behind the ball, not under its center. The instep is cupped into the center and the leg follows through with an extension of the foot. In the strip on the right, the player is using the instep kick for a long pass. He meets the ball squarely as it rolls toward him and directs it to a wingman a good distance away. In both these kicks, notice how the balancing foot is almost alongside of the ball at the moment of contact.



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GIRLS' BASKETBALL GROUP INSTRUCTION

By Ada B. Kennard

Ada B. Kennard, of the Detroit Public Schools system, is a national judge and referee as certified by the Women's National Officials Rating Committee.

WITHIN the past decade, girls' basketball has had its shape almost completely remodeled.

The first and perhaps most revolutionary innovation had to do with guarding. Most of the restrictions which hampered the guard of yore were legislated out of the code, with the result that we now see girls guarding in a fashion similar to that used in the boys' game.

The center throw was an interesting departure from the center jump and, more lately, the three-court game has yielded to two-court basketball.

These changes have improved the game immensely. Added interest for the spectator, faster play and the development of better players may be all attributed to these modifications.

Not long ago, basketball for girls was limited to the varsity picked by the coach, and the few who got together after school hours or who met in recreational centers, purely for the fun of playing. The increased interest in the game has resulted in a widespread demand for its inclusion in the school physical education and recreation programs.

This trend has brought with it the problem of presenting basketball to large class groups. The regulation game requires only six players on a side or twelve in all; yet it demands more than two-thirds of the average gymnasium floor, and in some cases the entire floor space. This situation presents a challenge to the teacher confronted with a class of 45 to 50.

As every coach or leader knows, the individual is interested chiefly in herself and the satisfaction she gains from her playing experience. The recognition of this individual attitude and the provision for it is essential to the success of any program. The leader is therefore confronted with the problem of providing an opportunity for individual development in the skills, a grounding in the rules, and, finally, competition for all.

With the small group this is a fairly simple order. But various factors complicate the teaching of large groups. In the secondary schools of

the larger cities, it is not unusual to find wide differences of race, grade, age and ability in a given group. In most cases, gym classes are scheduled at certain times during the day or week and there is little that the teacher can do other than plan a comprehensive and elastic program.

Fortunately, basketball lends itself to large groups in many ways. There are many skills or fundamen-

tals which lend themselves well to the simple game form. Shooting, passing (throwing and catching), pivoting, the bounce, stop turns, passing and cutting are a few that can be presented in game form. Relay and group games can be presented early in the season when inclement weather curtails the outdoor program.

With these factors in mind, a simple outline for developing basketball skills in large groups is herewith presented. The material is suited to the average gym group meeting a few times each week, with some variation in age and grade, an average mixture of races and ordinary ability. Membership may be from 30 to 80. The games listed are for the most part standard drills in general use.

1. Introduction to the game. Explanation of simple rules: (a) Limit to steps allowed with the ball; (b) Guarding without personal contact; (c) Obtaining legal possession of the ball; (d) Limit of one bounce. Court diagrams—blackboard.

2. Demonstration of correct form for: Passing, Catching, Simple chest shot, Chest push pass.

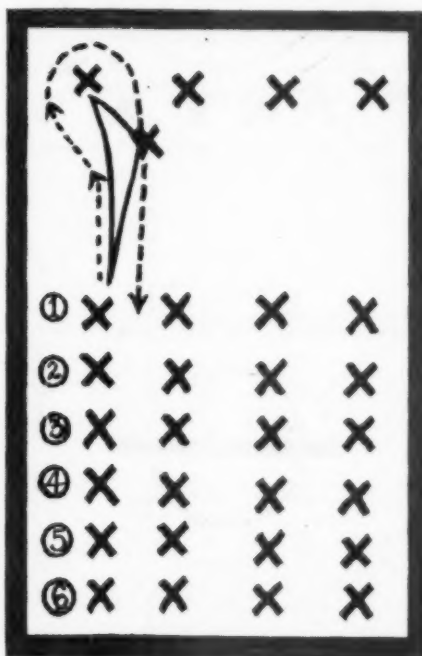
3. Class participation: The class as a group tries for correct form without the ball. Leader circulates and aids in correction.

The class is then divided into small groups of at least six players, depending upon the size of the class and the available floor space. Each group practices passing and catching. As the proficiency of the groups increases, the more difficult passes are taken up.

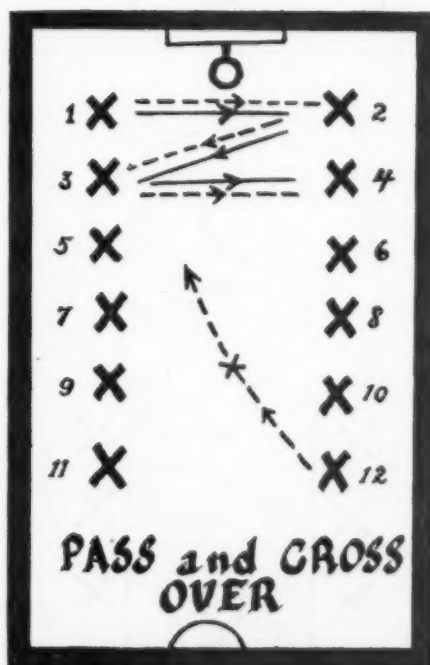
4. Presentation of skills in game form:

BOUNCE AND PASS RELAY (Diag. 1): At the signal, the first player steps forward, bounces the ball and passes to the receiver. After she circles the receiver, the ball is passed back to her. She then passes to the second player who advances in the same manner. The first player proceeds to the end of the line after her last pass.

PASS AND CROSS-OVER (Diag. 2): Two lines form in front of the basket. No 1 steps forward and after bouncing the ball and passing to 2, proceeds to 2's position as the latter proceeds in a like manner to 3's position. Each player takes the place of the player to whom she passes. The last player to receive the ball



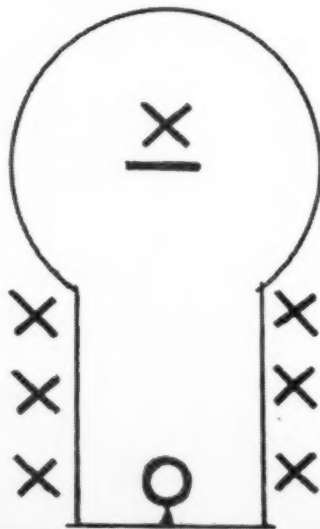
Diag. 1



Diag. 2.

X O X O

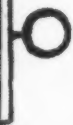
X O X
KEEP AWAY



- FOUL SHOOTING

X_A

XXXXX-----



X X X
X X X

PASS and CROSS
OVER

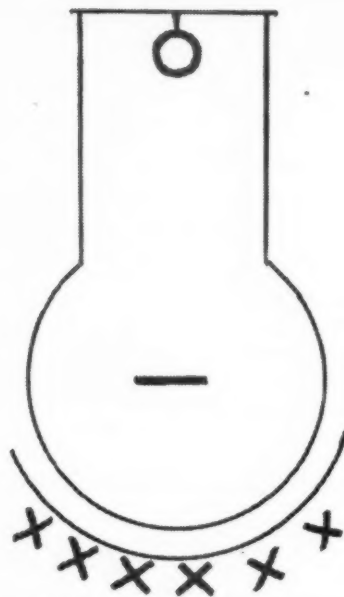


XXXXX
XXXXX

XXXXXX- I



PASS and RUN



GAME 21-
or
Do or Die

X X X
X O O X
X O O X

OFF
BACKBOARD

(12) takes a shot at the basket, recovers the ball and passes to anyone in line. After the pass, she goes to the No. 1 position; the ball is passed to her and she begins the game again.

GUARDING DRILL (Diag. 3): The players form a circle with two or three on the inside acting as guards. The ball is passed back and forth across the circle, the guards attempting to deflect or gain possession of the ball. The guard successful in intercepting a pass takes the place of the player making the pass; the latter takes the place of the guard.

PASS AND RUN (Diag. 4): Similar to the relay in Diag. 1 except only one line is used.

REBOUND DRILL (Diag. 5): Two lines form in front of the basket. One line shoots while the other recovers the rebound and passes to the next player in the shooting line. As each player shoots or regains the ball, she proceeds to the end of the opposite line.



Diag. 3

GAME OF 21 (Diag. 6): The players line up as indicated. Each has a long and a short shot; a long shot made gains two points, a short one one point. The ball must be regained on the first bounce, or to make it more difficult, directly on the rebound from the backboard. The first player reaching 21 wins the game.

DO OR DIE: This game is the same as 21 except that each player must duplicate or better the shots of the player immediately ahead of her. Failing to do so, she drops out. Last one remaining wins. To start the succeeding game, the players line up in the order in which they dropped out.

PASS INTERCEPTION (Diag. 7): Player A attempts to pass the ball to player B as the players in line run forward and attempt to intercept the pass. Whether the ball is intercepted or not, it goes back to player A. After the attempted interception, the runner goes around A to the end of the line.

5. Class participation in drills (Diag. 8): Each squad is assigned to a particular drill on the floor as shown. Each player practices within her own group and each group within its prescribed boundary. All squads are in action at once. Squads rotate for variety. With larger classes, the number in each squad is increased. At least six players are used in a group since a fewer number of drills and more frequent changes are desirable. (Diagram on facing page.)

6. Competition for groups—Side-line basketball: Divide the group in two and line each team along a side-line of the court. Subdivide each team into squads by numbering off in sixes or eights. The first six or eight players of each team compete first, in the regular way. Numbers 1, 2, and 3 (or 1, 2, 3 and 4) are the



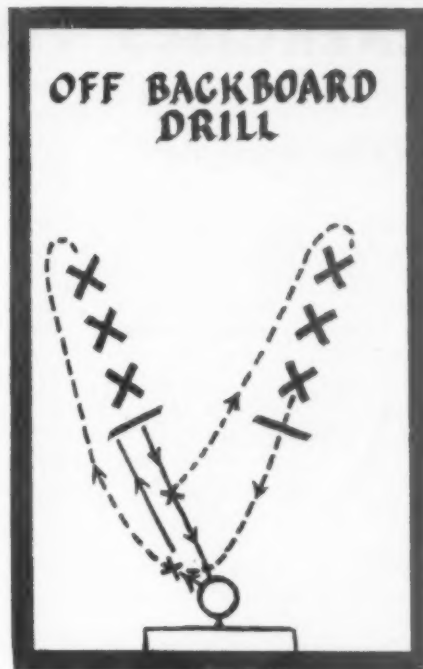
Diag. 4

forwards; numbers 4, 5 and 6 (or 5, 6, 7 and 8) are the guards. The regular rules prevail.

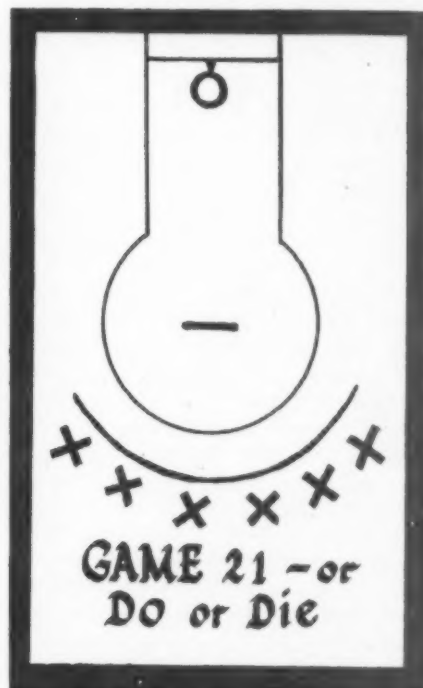
Divide the playing time so that each squad gets a turn on the court. The players on the sidelines are also in the game; they may pass the ball when it comes to them or when they receive a pass from a player on the court. In this way they aid in the progression of the ball.

7. Use of visual aids. Wall charts and motion pictures are excellent aids in the teaching of large groups.

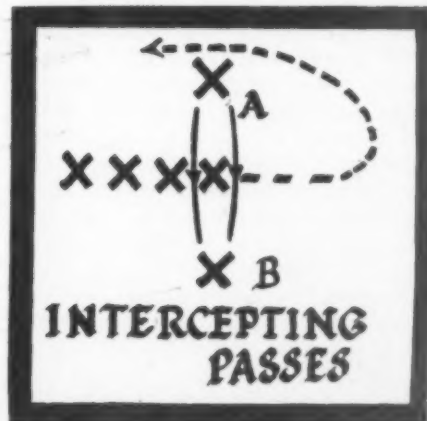
Among the better visual aids that may be obtained are *Fouls and Violations* and *Advanced Techniques*, two 16mm. silent films, on one reel with a running time of about 20 minutes. Rental is \$2 per day of use plus a 50 cent charge for handling. For reservations, write to the Scholastic Coach Bookshop, 220 East 42 St., New York, N. Y.



Diag. 5



Diag. 6



Diag. 7

EXERCISES FOR PHYSICAL FITNESS

By Albert Baumgartner

Albert Baumgartner is assistant professor and gymnastics coach at the University of Iowa. In collaboration with Dr. Laurence E. Morehouse, he has contributed two previous articles on his specialty—designing exercises for special athletic groups: for track, last April; and for football, last September.

ALTHOUGH the national preparedness program hasn't as yet delved very deeply into the potentialities of secondary school physical education, we may expect, in the near future, a subtle adaptation of these physical education programs to the program of national defense.

The stress will be placed on physical fitness. As always the major sports will play a leading role in contributing to muscular development, organic endurance and group morale. Where we may expect an intensification of interest is in a body-building and remedial program of exercises designed to make all students, as far as possible, physically fit.

Consequently, a reawakening interest in activities such as gymnastics and calisthenics may be expected. While these activities ordinarily are not considered much fun and have been quite generally eliminated from activity programs, they do offer interesting possibilities. Where sports and games aim at general body development, gymnastics and calisthenics concentrate on specific muscle groups.

Thus, a soundly fabricated program of calisthenics offers the instructor an opportunity to build up each part of the body quickly and efficiently. Let it be recognized that these exercises are not very exciting and that their recreation value is low, but insofar as body building and remedial work is concerned, they have incontestable value.

Following is a group of exercises which may be incorporated into short drills at the beginning of each activity period. Each group is designed for a specific body part: the first group concentrates on the arms and shoulders, the second on the abdomen, and the third on the hips, legs and feet.

Several exercises from each of these groups comprise a good lesson plan. A few exercises are all that is needed. The important thing is that they be correctly done and that the value of each exercise be known to the student.

As such they may be prescribed to certain students as voluntary homework. Boys with weak arms, for example, may be assigned a series from the first group to concentrate on at home. Others predisposed to bulging waistlines may be sold on the idea of extra-curricular exercises from the abdomen group.

Before starting the lesson, a short warmup is recommended to loosen up the muscles. The preliminary warmup may include: (a) stationary jogging for two or three minutes, or jogging around the track two or three times; (b) swinging the arms loosely in circling and reversing movements; (c) pivoting the trunk from side to side with the arms held at shoulder level and the feet in stride position; (d) bending the trunk forward and downward, at the same time swinging the arms between the legs with the feet in stride position.

These movements limber up the entire body and prepare it for exercise. Continue the warmup until a slight perspiration appears. Then go into the exercises.

Arms, shoulders and back



PUSH UP: From front leaning rest, flex and extend arms, touching chest to floor each time.



CHINNING: Grasp chinning bar with palms either toward or away from you, pull up until chin is above bar and return.



PENDULUM SWING: Grasp ends of parallel bars at shoulder height and jump up to support on bent arms; then swing body forward and backward, keeping arms fully flexed.

LADDER TRAVELING: Jump up and grasp first rung of horizontal ladder; pull up until head is near rung; release left hand and grasp second

rung; release right hand and grasp third rung; continue to end of ladder, keeping elbows flexed all the way; then see if you can return going backward.



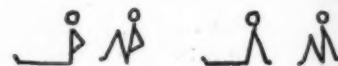
HANDSTAND WALK: Spread fingers on floor with hands shoulder-width apart and about one foot from a flat wall; lift legs and hips straight up against wall; after several attempts, try it on a gym mat; in toppling over, turn body and snap feet to floor; practice until you can take 10-25 steps.

ROPE CLIMB: Take an overhand grasp of rope with arms extended; pull up and clamp rope with feet crossed, knees flexed; continue hand-over-hand climb as fast as possible until top is reached; upon gaining proficiency, perform climb without aid of legs; descend slowly to avoid rope burns.

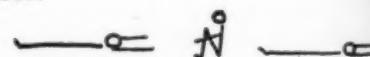
For abdominal muscles



TRUNK RAISER: From supine position with hands on hips or behind neck and feet under stall-bars or held by a partner, inhale and then slowly raise trunk about ten inches off floor, letting head hang backward; hold position about ten seconds, then return to starting position; relax a moment between exercises.



KNEE RAISER: Sitting on floor with legs extended and trunk erect, hands on hips or on floor behind hips; inhale and flex thighs, bringing knees close to chest without shifting position of trunk; at first, feet may be slid along floor; later, raise them off floor.



ROWING: From supine position

(Concluded on page 25)

LAST year an article entitled "Gill-slits, Tonsils and Touch-backs" was widely read. It started some progressive thinking which culminated in the elimination of a number of outmoded touch-backs and in other progressive changes in the football code. This was just one more step toward clearing out the deadwood and bringing the code of rules up to date. The game is still cluttered up with rudimentary provisions and obsolete adjuncts which are dead as a dodo but which still linger above ground. To get these out into the open for investigation, we ask:

1. Why is the return-kick retained when it is practically obsolete, cre-

during the snap. It is a feat of memory to cull those on which the whistle is blown immediately. Fundamentally the entire 15 are the same type of infraction. You may feebly argue that the waste action is justified by the remote possibility (approximately 1 in 6,000 plays) that the infraction may be followed by a fumble and recovery by B. To provide data on this problem, the entire state of Michigan is playing under the modified rule that the ball remains dead in all of these cases, with the exception of offside. (For further information on the Michigan experiment, refer to *National Federation News* on page 44 of last month's *Scholastic Coach*.)

all, maybe it ought to have the little encouragement which the right to move the ball would give. The ball is already moved as much as 15 yards when in a side-zone and a few more yards would not be revolutionary.

4. Why should Team A be prohibited from throwing a forward pass from behind the line, regardless of whether it is the second or tenth pass during that down?

Comment: The prohibition against a second pass from behind the line crops up in various places as an exception to fundamental pass rules. It is probably a hold-over from the time every effort was made to hamstring the forward pass.

Through the years, the interscholastic code has gradually eliminated these outmoded restrictions which tended to make the forward pass a tolerated but illegitimate member of the attacking family. Many of these ball-and-chain devices were retained long after their function had become as foreign to football philosophy as a duck-billed platypus. They now sound absurd but created a furor when change was proposed.

Call the roll! You can't throw more than one pass in a series of four downs. You can't throw a pass unless you are five yards behind the line. You lose possession if pass is incomplete in the end zone on any down. You lose possession if an ineligible player touches a pass inside the 10 yard line. And many others.

5. Why should a punt be dead as soon as it touches an object in the end zone?

Comment: Is this a relic of days when the posts were on the goal lines and when the end zone was really out of bounds?

6. Why should a foul by B during a down give an automatic first down?

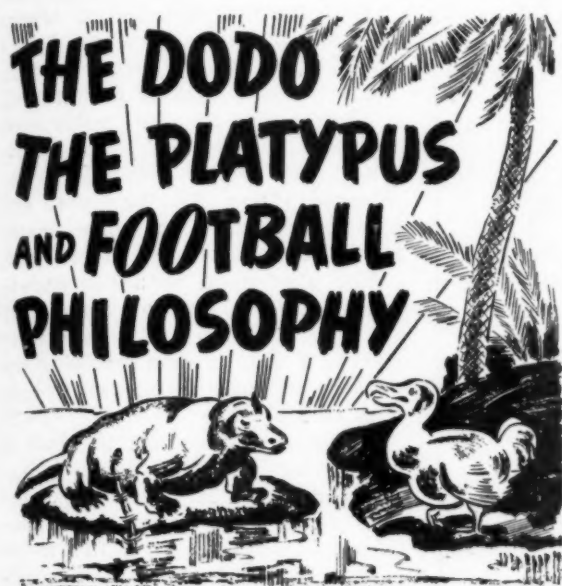
Comment: Is this part of the old concept that most penalties were enforced from spot of the foul (instead of spot where ball is dead as at present)?

7. Why shouldn't a foul after a touchdown be penalized on the try?

Comment: Does this hark back to the time it was thought most tries would be attempted by rushing and that a distance penalty would be too severe or too light? Most tries are by kick, and a field goal from the 7 or 17 is not too difficult.

8. Why do we give B a present of 20 yards when A is last to touch a loose ball which goes out behind B's goal line?

Comment: Does this belong to a
(Concluded on page 39)



BY
H. V. PORTER

ates complications in the rules and requires study effort which might be used to better advantage in learning the fundamentals?

Comment: This is a hold-over from English Rugby, the great granddad of American football. Rugby is primarily a kicking game where the shape of the ball and the lack of interference for the runner makes it desirable to kick while on the run. In the modern game, neither the shape of the ball nor the type of play is such as to make desirable or possible a kick after possession has changed.

2. Why does the ball stay in play and create waste motion when (a) there are less than seven men on the line, (b) when a player is prostrate or (c) when linemen are in illegal position; while it "remains dead" for the other ten infractions connected with the snap (such as snapper lifting ball, snapping ball to a lineman, illegal shift, etc.)?

Comment: There are at least 15 possible infractions that may occur

3. Why is it necessary to have different rules for the three free-kicks, i.e., kick-off, safety-kick and fair-catch kick?

Comment: The interscholastic code has, over the past several years, gradually eliminated most of the differences. They are now identical except: (a) If a kick-off goes out of bounds, the receivers may take the ball 20 yards from where it was kicked and (b) the free-kick after fair-catch is the only one for which the ball can't be moved anywhere along the proper yardline (and between the inbounds lines). There is no good basis for this difference as conditions are similar.

It might be claimed that after a fair catch the right to move the ball would put it in better position for a field goal try. Why shouldn't it? The free-kick after fair-catch is almost extinct (an average of 1 in 8,000 plays). The fair-catch is seldom used and even when it is, the team seldom chooses the free-kick after the catch. If it is to be retained at

A SIMPLIFIED ATTACK FROM A 2-1-2 SETUP

By Bruce M. Fisher

Ferndale High School in Johnstown, Pa.—Bruce M. Fisher, athletic director—uses a simple but highly effective offense based on a single pattern and a series of closely integrated plays for every situation.

FIFTEEN years of coaching experience in a small high school where material is limited and where the offense must be fitted to the boy, rather than the boy to the offense, has proven to me that the simpler the type of play the better are its chances for success.

Operating on this theory, Ferndale has won 36 out of 46 games over the past two years; all against schools with larger enrollments. The attack is based more or less on a single pattern. We fast break, work deliberately and attack a zone in somewhat the same fashion; with options and fakes, of course, to keep the defense guessing.

The advantages of such an arrangement are obvious. The boys learn more readily, the coaching task is facilitated, and the savings in time is tremendous.

Our offense starts with our defense, in a manner of speaking. We use a zone, with two out and three back, which serves admirably as a springboard for our fast break. We try to corral at least three tall boys. On defense we play them in the back line for rebound work. The other two boys are the aggressive, shifty type who play the front court.

Upon gaining possession of the ball (Diag. 1), 1 and 2 cut for the sidelines, while 3, 4 or 5, one of whom usually recovers the rebound, tries to feed the ball up to them.

In this play, 3 snares the rebound. He passes to 1 who pivots and whips

the ball to 2, who cuts for the basket as 1 starts his pivot. No. 2 dribbles in and shoots if he's open or return passes to 1. He may also pass to 3 or 5 driving under.

If the fast break doesn't produce an opening, the ball is passed out for the development of a regular offense based on the same pattern. Against opponents who press all

over the court, the fast break is difficult to work. The ball-handlers usually have too much trouble relaying the ball to the cutters. In this contingency, 1 and 2 are instructed to pivot and drive back to help relieve the pressure. The play is shown in Diag. 2.

No. 3, who has the ball, finds himself unable to pass to 1. The latter pivots and cuts directly back toward 3. The ball-handler passes either to 1 or 2, and follows his pass.

If 1 receives the ball, 2 breaks for the basket as shown. No. 1 feeds either 3 or 2, who, in turn, feeds 1, 3 or 5 driving for the goal.

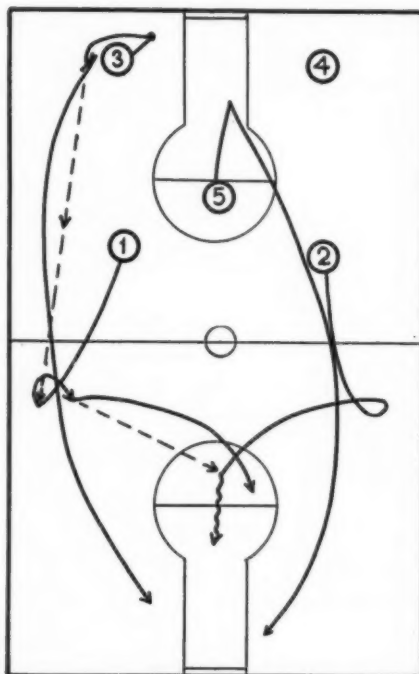
Should no opening materialize, the ball is passed back and a set offense with similar continuity is attempted (Diag. 3). We try to end every shot with three men under the basket and one on the foul line.

The play starts with 3 in possession. He feeds 1, while 2 breaks into the lane, running his man into post-screen, 5. No. 2, upon receiving the pass, may shoot, return pass to 1, or pass to 5 or 3.

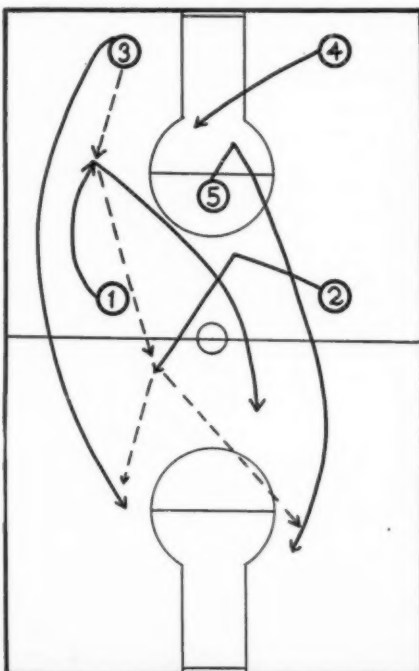
If no shot develops, the ball is passed out and the setup is attempted again. If 1 doesn't get the pass as he cuts up court, he continues on across the foul line to the basket and back to his corner position again (Diag. 4).

An option to the continuity is outlined in Diag. 5. No. 3 is the key man. He fakes a pass to 1 as a signal for 2 to break across the center, bumping his man into 5 at the same time. If 2 shakes loose, he gets a pass and may shoot, feed 5 under the basket, or pass to 3 who runs his man into 1. The latter covers the foul line, while 2, 5 and 3 take the basket.

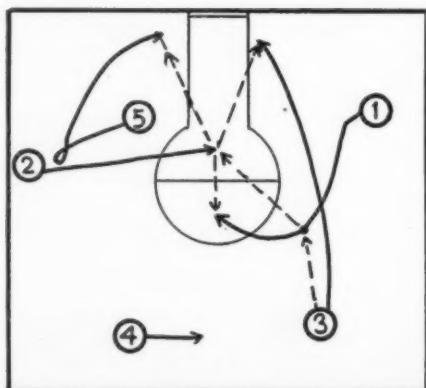
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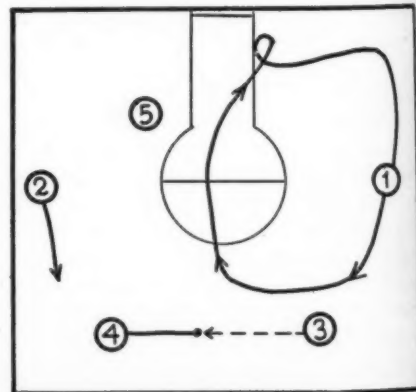
Diag. 1



Diag. 2



Diag. 3

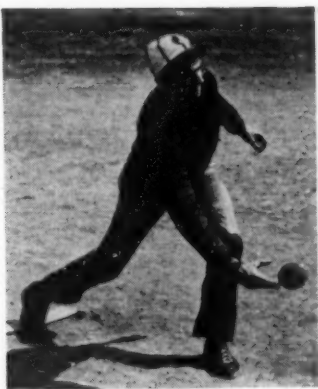


Diag. 4

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City..... State..... Enrollment of school: boys girls

A MUSCULAR ANALYSIS OF THE CRAWL

By Mark Rennert

Mark Rennert, a graduate of the New York University school of physical education, has had considerable experience directing physical education and swimming programs in C.C.C. camps and secondary schools. An accomplished swimmer himself, he's made the kinesiology of the sport his avocation.

A KNOWLEDGE of the muscular action employed in swimming the crawl stroke may serve the coach or teacher in four respects:

1. It gives him a clear picture of the relationship between good form and proper muscular action. As such, it serves as a basis for the teaching program.

2. It gives a key to the factors which induce fatigue.

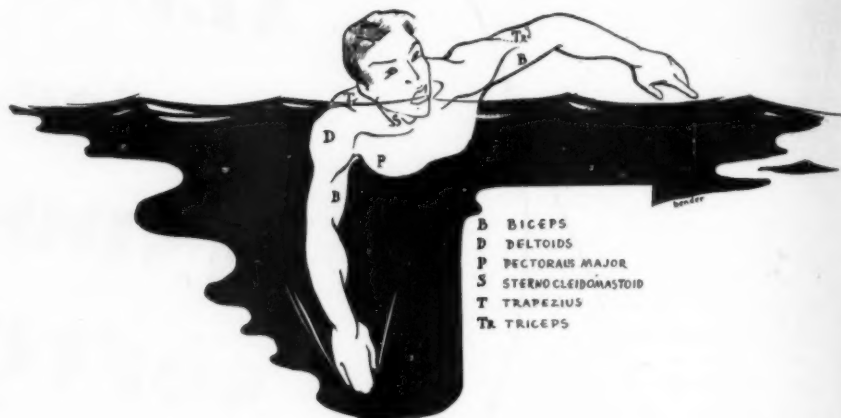
3. It directs attention to the specific muscle groups which require development and massage.

Muscular work is performed by a change in the form of the muscle. The phenomenon is known as contraction. In swimming and other athletic skills, muscles can be contracted at will to any degree up to full strength and then relaxed at will down to any desired degree. In other words, there are many grades of contraction and relaxation.

Balance and breathing

The process of breathing should be effected with the least disruption of rhythm in stroking and with little or no loss of balance. Swimming with the "chin up" is essential for proper body balance in the water. It makes for a minimum of water resistance. In sprint swimming, this is a particularly effective way of achieving maximum speed.

The upper portion of the trapezius is continuously contracting on either side of the upper back, thus lowering the back of the skull and tilting the chin. A greater degree of



contraction on one side of the upper trapezius causes the skull to rotate just enough for the necessary breath of air (see illustration).

The contraction of the muscles for this function should be so controlled that the head is rotated to a 45-degree angle, and no farther. If the swimmer is forced to turn his head completely to one side in order to breathe, you can rest assured his head is riding too low in the water. Furthermore, the extreme sideward movement of the head provokes a roll.

Swimmers who stray from their lanes during a race may trace this fault to an improper submergence of the head. Almost complete blindness of the forward view comes from stroking with the head face down in the water.

The arm stroke

In analyzing the arm stroke, we begin with the elbow flexed above water in preparation for the stroke. The biceps are chiefly responsible for this flexion.

The stroke is a complex combination of sideward and upward elevation of the arm followed by a forward

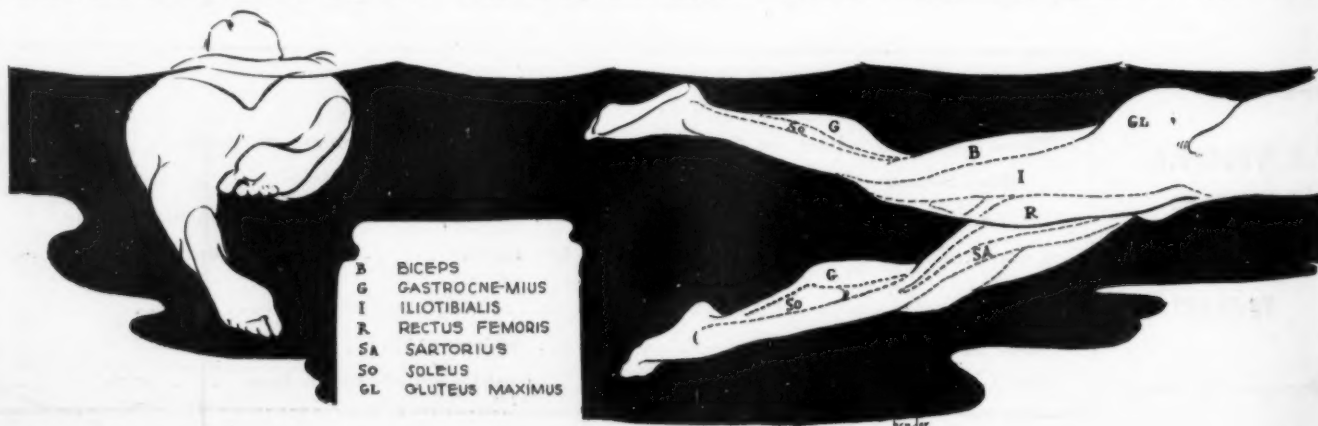
ward swing and a striking-down motion; and, finally, a pulling backward.

The trapezius (large back muscle) is in constant action throughout the stroke. Every part of this muscle works in raising the arms sideways and especially above shoulder level. No other bodily movement appears to employ the whole trapezius at once.

The other muscles concerned with sideward and upward elevation (abduction) include the deltoids on the upper shoulder and the supraspinatus above the shoulder joint. In the forward swing the deltoid, pectoralis major (upper chest), and coracobrachialis (inside of upper arm) bring the humerus forward. The scapula rotates upward in the forward swing, thereby taxing the serratus (below pectoralis).

The downward striking of the arm may be broken up as follows:

1. *Extension of elbow:* Triceps.
2. *Depression of humerus:* latissimus (lower back), pectoralis major, teres major (below armpit), and deltoid.
3. *Downward rotation of scapula:* rhomboid (center of upper back),



pectoralis minor, (a chest muscle).

The lower pectoralis major together with the deltoid comprise the most powerful forces in the pulling or striking-down motion of the arms. If the arms are too wide apart in the stroking process, the lower pectoralis major fails to act and thus no real force is exerted.

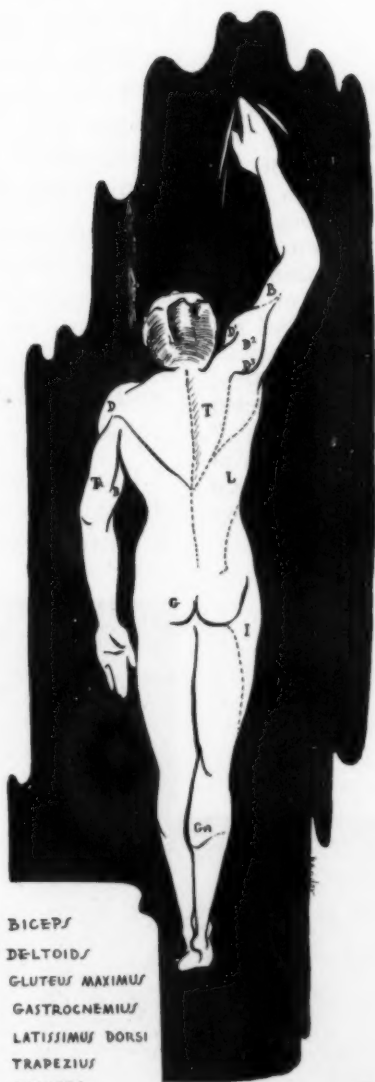
The exploitation of the powerful pectoralis major is recommended. Bring the arms close to the ears in the forward swing, then strike directly downward and continue with the pull backward.

Crawl stroke, as a group, exhibit well-elevated chests. Frequent usage of the pectoralis minor muscle in striking downward tends to develop a shorter muscle. This helps raise and expand the chest.

Pulling backward

The pulling-backward motion is the next factor to be considered. There is an extension of the triceps and a depression of the humerus by the latissimus, teres major and deltoid. The cycle is then repeated with gradual flexion of the elbow. A very

(Concluded on page 31)



- B BICEPS
- D DELTOIDS
- G GLUTEUS MAXIMUS
- CA GASTROCNEMIUS
- L LATISSIMUS DORSI
- T TRAPEZIUS
- Tr TRICEPS

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ABOVE: Preparation and follow through for the forehand drive. The fingers are relaxed, the elbow bent and down, and the wrist cocked. The left foot is forward and the racket well back. Contact is established off the left foot, with the weight coming forward. The racket is released with a throwing action away from the shoulder pivot.

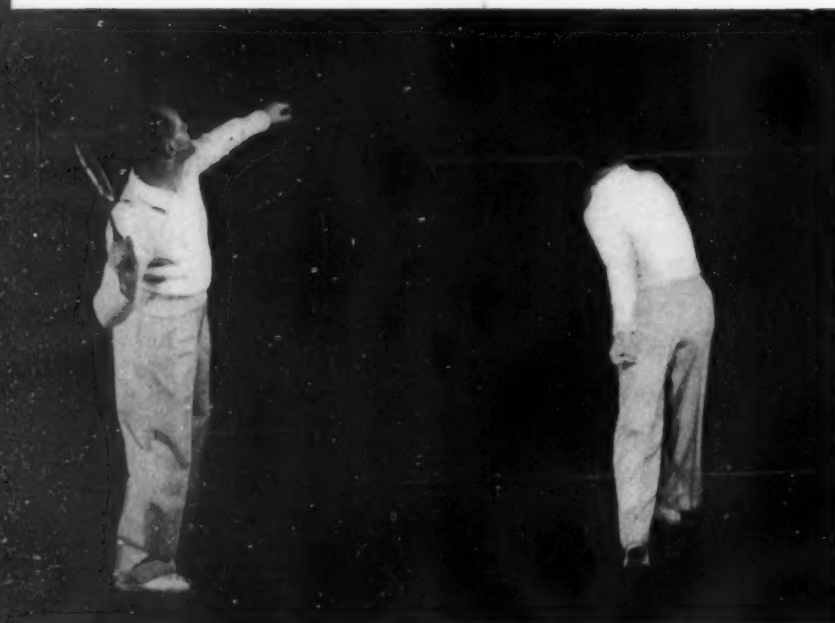


LEFT: Grip for the forehand, holding the shaft with the face perpendicular to the floor. The handle is grasped so that the V formed by the thumb and forefinger is in line with the head of the racket. The little finger fits securely on the butt. Directly above is a side view of the forehand grip, after the left hand has been released. The arm, wrist and racket form a straight line; there is no angle.

While the racket is held firmly (but not tightly), the wrist remains flexible. A good flexible wrist action is absolutely essential. Synchronized properly with the arm and body it produces sound strokes.

BADMINTON FUN

By Hugh Forster



LEFT: Preparation and follow through for the overhead stroke. On these shots, the bird is met in front of the right shoulder as high as is comfortably possible. The racket head is thrown at the bird in the same manner as pitching a baseball; at contact the grip is firm but not tight. In the follow through (second picture), the weight shifts forward and the racket is thrown in the direction of the flight. This same type of follow through is employed for clears, smashes and drops.

PERHAPS the most essential factor is the preparation of the body, feet out this solid foundation, good, correct, impossible. The proper preliminary desired depth, power and placement camouflaging the stroke.

The resemblance of shots to one another tends to freeze the opponent from anticipating the type and direction and thus forcing him to stay put in contact. The illustrations show the preparation and follow-through techniques of these shots.

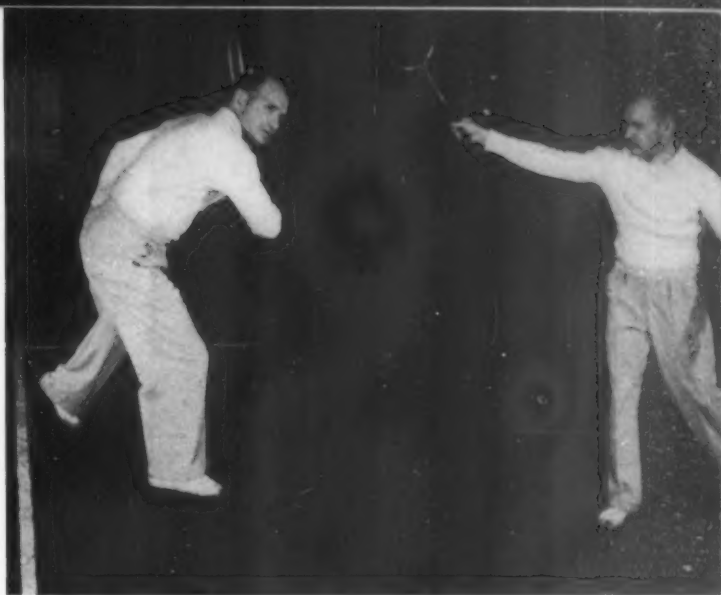
(The author himself posed for the pictures. An international favorite, he has played in many countries and appeared in several

BELOW: The serve. Either foot may be kept forward. The arm is held a little out from the side and back, with the wrist well cocked and arm extended. The bird is propped between the three middle fingers and thumb. It is dropped slightly to the right and far enough in front to facilitate a full arm stroke. Wrist is released slowly on low serves; strongly and quickly on high ones; weight goes forward.



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RIGHT: Grip for the backhand. Holding the racket in the left hand, rotate the right hand to the left until the thumb comes to rest firmly on the side of the handle and the knuckles are in full view. This is what is known as the "thumb-up" backhand. A side view of the backhand is shown directly above. Here again notice the straight line of the arm, wrist and racket, and the position of the thumb. This type of grip is used on shots which can be intercepted in front of you. On shots which pass you, the forehand grip may have to be used on the backhand. But make contact on backhand surface of racket.



ABOVE: The player prepares to meet a low shot on the backhand by cocking wrist, bending elbow and drawing shaft back so that it practically rests on upper part of left arm. After the racket has been thrown at the bird, it follows through in line with the flight. It is considered complete when racket, arm and shoulders are in line.

FUNDAMENTALS

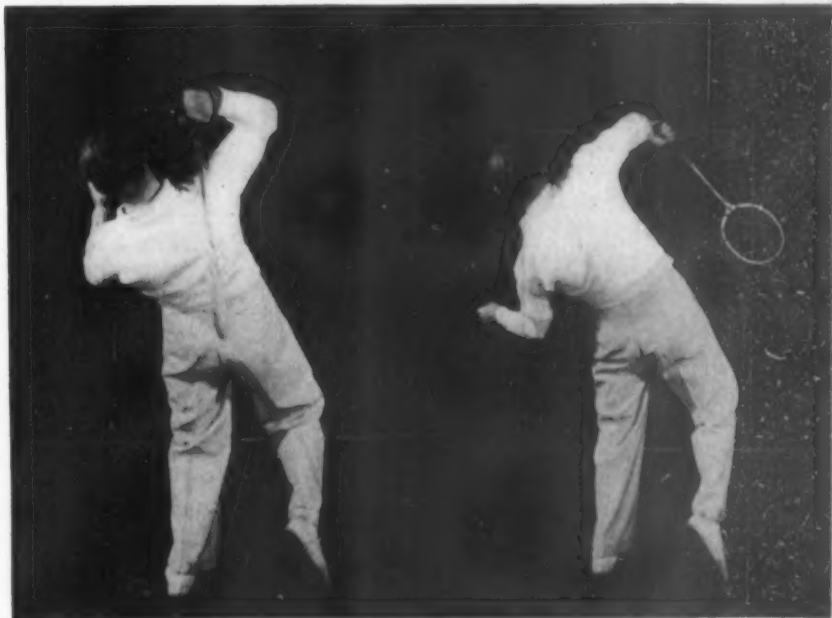
Hugh Forgie

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dation, good, consistent stroking is
proper preliminaries assure the de-
r and placement. They also aid in
stroke.

of shots to one another in prep-
eeze the opponent, preventing him
the type and direction of the shot
im to stay "put" until actual con-
ions show the correct preparatory
n techniques of each of the basic

elf posed for these exclusive pic-
ional favorite, he has toured four
eared in several movie shorts.)

RIGHT: Preparation and fol-
low through for the around-
the-head shot. This stroke is
used for shots which are in-
tercepted over the left side.
It is favored over the back-
hand in that it has the ad-
vantage of more power. While
the forehand face makes con-
tact, the bird is struck over
the left hand side of the body,
off the shoulder. The elbow
travels backward and only
comes through after contact,
finishing on the right hand
side. At times, the left foot
may be brought farther back.



BELOW: The center picture shows the preparation for a backhand drive which is being met at shoulder height. The bird must be met at net level and sent in a low trajectory deep into the opponent's court. In picture on extreme left, the player is preparing to meet a high backhand. The elbow is now up. In preparing for a low forehand (last picture), the wrist is well cocked and arm straight, but not stiff.



DIET FOR SWIMMERS

By L. E. Morehouse

- ① Sample menu for a non-competition day when practice is in the afternoon:

BREAKFAST. Fruit; cooked cereal with cream and sugar; toast and butter; milk.

LUNCHEON. Meat sandwich; cream vegetable soup or cooked vegetable dish; fruit; milk; dessert.

DINNER: Meat, poultry, fish, cheese, eggs, dried peas, or beans; potato, rice, macaroni, spaghetti, or noodles; vegetable, either leafy, green, or yellow; salad or raw vegetable; bread and butter; dessert; milk.

- ② Competition-day diet when meet is in the evening.

BREAKFAST (7:30 A.M.). One-half grapefruit with one tablespoonful of sugar; cooked cereal with cream and sugar; two slices of toast and butter; two poached eggs; milk.

DINNER (11:30 A.M.). Clear soup (meat stock); celery; broiled steak, roast lamb, roast beef, or chicken; peas, beans, carrots, or beets; baked, mashed, broiled, or creamed potatoes; lettuce and tomato salad; bread and butter; ice cream with fruit syrup; milk.

LUNCHEON (3 hours prior to competition). Orange juice; toast and butter; tea and sugar.

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THERE are two factors in competitive swimming which accentuate the importance of a carefully planned diet and conditioning program. They are: First, the liability to infection, which must be countered by an increased general resistance; and second, the need of fuel for muscular work, cell maintenance, and proper function of organs.

The fact that man is not a water animal necessitates many physiologic adjustments by the swimmer. Daily immersion puts a strain upon the temperature regulating mechanisms, washes away surface body oils, and may irritate mucus membranes of the upper respiratory tract. The skin between the toes, the conjunctiva of the eyes, and the inner tissues of the ears may be also irritated and become foci of infection.

Although the water of most modern swimming pools is as free from injurious bacteria as the city drinking water, still the swimmer may come in contact with bacteria-laden saliva and body excreta which have recently entered the water and have not been disinfected by the chlorine. Danger from this contamination is greatest in places where large numbers of swimmers are in the pool at once, and where those entering the water haven't had a thorough bath or are wearing soiled swimming suits.

The swimmer with low general resistance is particularly exposed to colds and nasal, sinus, and skin infections. These reduce his physical efficiency and may thus ruin an otherwise successful season.

Adequate diet is one of the first lines of defense in building up a general resistance to infection and physiologic stress.

Mineral salts. General resistance may be affected by the amount of minerals in the diet. An interesting experiment was tried with mice. Before innoculating them with germs, the minerals in their diet were lowered to one-fourth of that normally present, for a period of two weeks.

Their fatality rate jumped from 9 to 34 per cent. When the calcium in their diet was reduced from .55 to .10 per cent, their fatality rate increased from 12 to 59 per cent.

A diet insufficient either in total mineral salts or unbalanced in respect to mineral salts, decreases resistance. As a considerable amount of mineral salts are lost by perspiration during swimming, the diet of the swimmer must contain above-average amounts of these salts.

Vitamins. As vitamins maintain the health of tissues, an adequate supply should have a beneficial effect in promoting resistance. Vitamin A is of special importance to swimmers. It has long been known to protect the normal condition of the skin and the mucous membranes. An adequate intake will thus build up resistance against infections of the skin and the respiratory tract.

When the vitamin A intake is low, infections of the upper respiratory tract and skin, and also of the sinuses and ears, occur more frequently. The prevalence of boils, sores, impetigo, and other evidence of skin infection have been observed in those with vitamin A deficiency.

The discoverer of vitamin C believes that this vitamin may also be of importance in resistance to infection. He stated that a deficiency of vitamin C may superinduce infections in those with low resistance. A protective effect of vitamin C against diphtheria and tuberculosis has been claimed. Vitamin C also inhibits the growth of streptococci in test tubes.

Protein. Being the foundation substance of cells, protein would be expected to aid in whatever work they have to do. It may be of particular importance in overcoming infection. Rats fed on a casein (milk protein) -rich diet were found to have a much higher resistance to diphtheria than rats fed on a diet high in carbohydrates and fats. High school boys who need large amounts of protein for growth and repair should make sure that their protein intake is adequate for both growth and resistance to infection.

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An adequate daily diet supplies

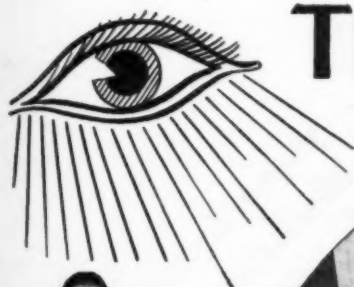
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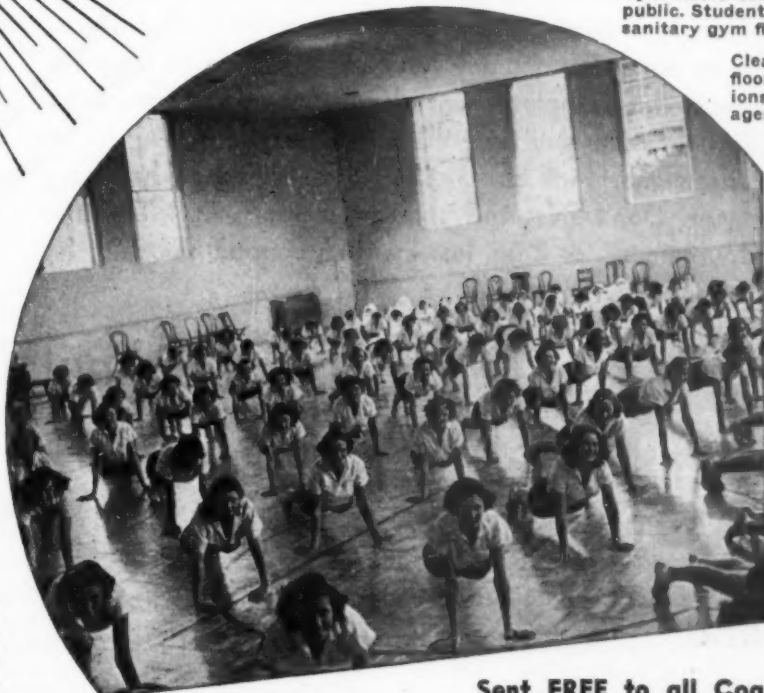
Hillyard HI-KO helps prevent Athletes foot, ring worm fungus or organism. Use HI-KO in foot bath trays, mopping solutions and in sprays.

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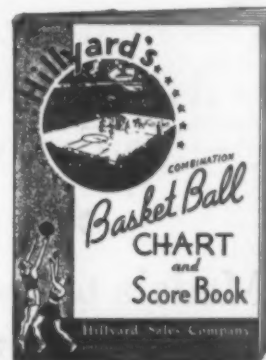
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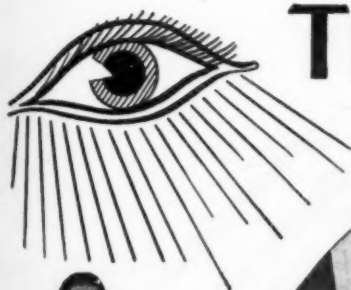
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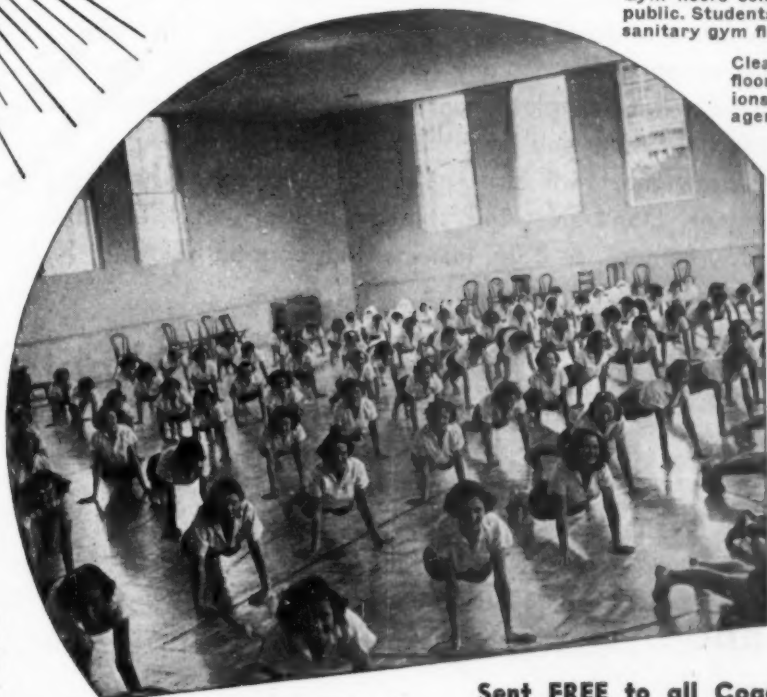
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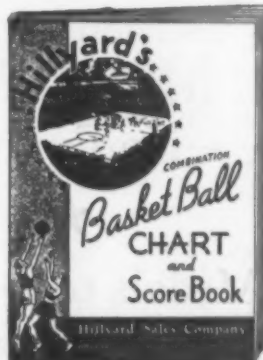
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Physical Fitness Exercises

(Continued from page 14)

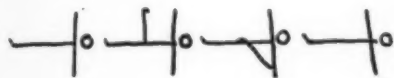
with arms raised overhead, raise body to sitting position, simultaneously flexing knees with heels close to buttocks; place extended arms between knees as far forward as possible, then return at once to starting position.



FLUTTER KICK: Lie on back with legs about one foot off floor, toes pointed and hands behind neck; then, alternately, left and right, kick legs rhythmically upward in about a foot and a half extensions.



SEE-SAW: Lying on back with arms extended overhead and legs raised behind head, toes touching hands; lower legs to within six inches of floor and then raise body by swinging arms forward over toes; return to starting position and repeat.



Legs and ankles

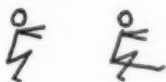
LEG CROSSING: From supine position with arms extended sideways, level with shoulders, palms down; raise right leg to a perpendicular position and then swing it across body until toes touch floor or left hand, keeping left hand and left leg stationary; return to starting position and repeat with left leg.



SQUATTER: From standing position facing stall-bars, grasp a bar at shoulder level; assume a squat position, hop upward and land with feet on fifth or sixth bar in a squat, then immediately return to starting position and repeat; perform this exercise fast and in rhythm.



DUCK WALK: From deep squat position, walk forward and backward.



RUSSIAN WALK: With both knees flexed, extend left leg forward so that left heel touches floor, keeping arms forward for balance; repeat, alternating legs, in rapid rhythm.

JUMPING JACK: Clasp hands over top of head, standing with right foot about six inches in front of left foot. Squat all the way down, then jump up extending legs fully about six inches off floor; while in air, change position of feet so that upon landing left is ahead of right.

ROPE SKIPPING: Using an ordinary rope, do the one- and two-foot skips until breathing hard; may be used as a warmup.

FOOT ROTATOR: Sitting on low stool or bench, place left ankle on right knee; move left foot to left in counter-clockwise fashion; when circumducting right foot, use clockwise movement.

GROUND GRIPPER: Sitting on low stool or bench with feet twelve inches apart and parallel to each other, resting on floor: slowly curl toes under so that soles of feet contract; hold this gripping position for about five seconds and then relax feet. If possible, perform the ground gripper and foot rotator bare-footed.

BALL ROLLER: Sitting on stool or on floor, place a medium-sized ball between soles of feet; hold ball in air with feet, rolling it forward and backward.



MUSCLE STRETCHING: Lying on back, bring knees close to chest, keeping feet raised and hands grasping toes; straighten legs at knees until pull of muscles in back of knees and legs is felt; then flex knees again and repeat.

**PRACTICE
AND
PROTECTION
are
Equally Important**

Basketball teams need perfection of play and perfect condition.

Neither can be attained unless there is protection against injury to ankles, wrists and knees.



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SLIP US THE OBLATE SPHEROID, GUS!

Illustrated by Kate "Fifth Down" Tey

If you have something for this column send it to Bill Wood, Evanston Township High School, Evanston, Illinois.

"And everywhere that Crisler went, the twelfth man was sure to go." That might well be the lament of Michigan's head man these days. Three times has a twelfth man projected himself into a Crisler-coached lineup. At Princeton a few years back, a raccoon-coated "wedding guest" rushed onto the field in a blinding snowstorm and lined up with the Tigers. A play was actually run off before he could be hurled out of the park. Last year at Michigan, a coatless nuisance, tired of watching Tommy Harmon run wild against California, attempted a snappy cross-body tackle from the sideline. Against Ohio State a couple of weeks ago, Michigan's backfield found itself lining up with a man in a green shirt. Before the sartorial eyesore could identify himself, four policemen were rushing him to the nearest gutter.

As long as "There Will Always Be a Twelfth Man," Mr. Crisler might as well resign himself. He could do worse than build a few sequences with the visiting fireman in the scat-back post.

Sign of the times: A fellow who ran 60 yards for a touchdown against Princeton back in 1926 was walking his dog last Saturday afternoon and stopped to watch some little boys trying to organize a football game in a vacant lot. . . . The usual vociferous argument was in progress, and our man smiled indulgently, remembering that when he was a little boy everyone had wanted to play quarterback.

It gradually became apparent to him, however, that these little boys weren't particularly concerned about who played quarterback. They all wanted to be the radio announcer. (From *The New Yorker*, November 15.)

It happened in California one evening while the Chamber of Commerce was off duty. Fullerton was playing Jordon of Long Beach. As the players lined up for the second half kickoff, a heavy fog shrouded the field. A Jordon back kicked, the ball rose in a quick arc—and nobody ever saw it again! Officials postponed the rest of the contest.

Credit for the best, if not the longest, boot of the season goes to Muha, a V.M.I. back. Against Army early this season, he booted one from his own 15-yard marker to the Cadets' one-inch line!

Previously engaged as an official in a college game, Ralph Farina, coach of the undefeated Harrisburg Catholic eleven, couldn't be with his team on November 15 for its tilt with Hershey Industrial. But he made sure his booming voice would be there.

The night before the game he made three records. One marked "Before the game," another "At the half," and a third, the super up-and-attem, go-gettum inspirational address. "To be used only if we're behind."

Early last month, Arkansas A. & M.'s scoreless wonders got out there and fought in response to the pleas of the opposition coach, Bob Meyer, of Upsala, but Meyer's fliers won anyway, 19 to 6.

Meyer made a speech in Arkansas' dressing room exhorting them to "get in there and fight against us. Play to win as you've never played before." He explained to the stunned Arkansas coach, Stew Ferguson, that this was his first year at Upsala, that his team had not won a game and he wanted it to win on its merits.

A couple of months ago two women dashed into the office of a Georgia sheriff yelling, "Escaped convicts.

They just drove by in a stolen car!" The sheriff and his deputy immediately gave chase. After several miles they overtook the car, but the "escaped convicts" turned out to be football officials charging home from a game in their striped working clothes.

Thanks to Coach Ralph Gress of Chattahoochee, Fla., for letting us in on that one. Incidentally, last year his team won both the state and the Southern championships.

Down in Hurricane, W. Va., where "Ironhorse" Conner coaches the "Red Skins," the fans are comparing Bestelli to their own Joe Miller. In eight games this season the flashy 132-pound halfback completed 48 out of 63 passes for a total of more than 1300 yards. The Red Skins, representing a high school population of 250, have now won fourteen in a row and are ready to take on any worthy opponent in a post-season game for sweet charity's sake.

It seems that a couple of the boys broke up a game in Pennsylvania recently when they turned a skunk loose under the stands. The patrons, three thousand strong, immediately lost interest in the game.

Gridiron heroes play for the doggondest things! Minnesota and Michigan battle over the possession of the "Little Brown Jug" (empty); Purdue and Indiana for the "Old Oaken Bucket" (empty); Iowa and Minnesota for "Floyd of Rosedale," a bronze replica of an Iowa-fed shoat. (hollow); and now Northwestern and Illinois are risking neck and limb for the "Fire Bell" (no clapper), 100-year-old relic pulled out of the loft of an Oshkosh, Wis., fire station by the father of Dick Erdlitz, Northwestern's senior quarterback.

When you're making out a list of undefeated and untied elevens for 1941, don't overlook James Millikin University, Illinois College Conference champions. The "Big Blue" really came up with a powerhouse attack this season to achieve their first unmarred record in 21 years.

Mothers, let your boys play football if you must, but if you don't want them hurt, keep them away from the band. Out Sedan, Kan., way, the gridsters got by without a scratch, but at one game, horn-blower Thornhill tore a face ligament with a too vigorous toot while Kenny Smith lost an upper tooth when somebody, in a burst of enthusiasm, tried to ram a baritone horn down his throat.

Add Odd Size Department: Dick Denny, Jacksonville, Ill., fullback, weighs 205 pounds and is able to stretch to the majestic height of 5 feet 6 inches.

We nominate George Dixon as the Ironman of modern Ironmen. For Millikin University he played every minute of 29 consecutive football games, but the Army turned him down as physically unfit for active duty. Dixon had played most of the 1939 season with a broken wrist in a cast. According to physicians the wrist is still too stiff to allow freedom of movement.

Last year Carr, Colo., had unanimous participation in its athletic program. All eight boys enrolled in school were members of the basketball squad.

From Caruthersville, Mo., to St. Louis is 292 miles via the Mississippi. John Sigmund swam it in seven minutes less than ninety hours. His wife went along in a canoe and whammed him with a paddle whenever he started to fall asleep.

Pro football has its share of great stories. One of the best concerns the career of one John Doering, Milwaukee High School graduate who signed to play with the Chicago Bears. Doering could pass a football from here to the horizon and Coach Halas planned to take advantage of his ability. For weeks the boy was drilled to circle back of Gene Ronzani in deep punt formation, take the ball, wind up and heave it down the field some 90 yards or so to a teammate for a touchdown.

Came the big game against a strong Boston team with the score knotted seven-all in the waning moments of the final quarter. It was time for Doering's pass Halas figured. "John, you know what to do. Here's where you make your professional debut."

"Who, me?" gasped Doering. "Become a pro? No sir! My mother told me not to lose my amateur standing."

It's happened at last! A football official has shot himself, accidentally though. In mid-October, C. W. Rupp, National Football League official, fired the gun to end the first period of the Pittsburgh-New York game. The gun went off a second time, wounding the official in his left hand.

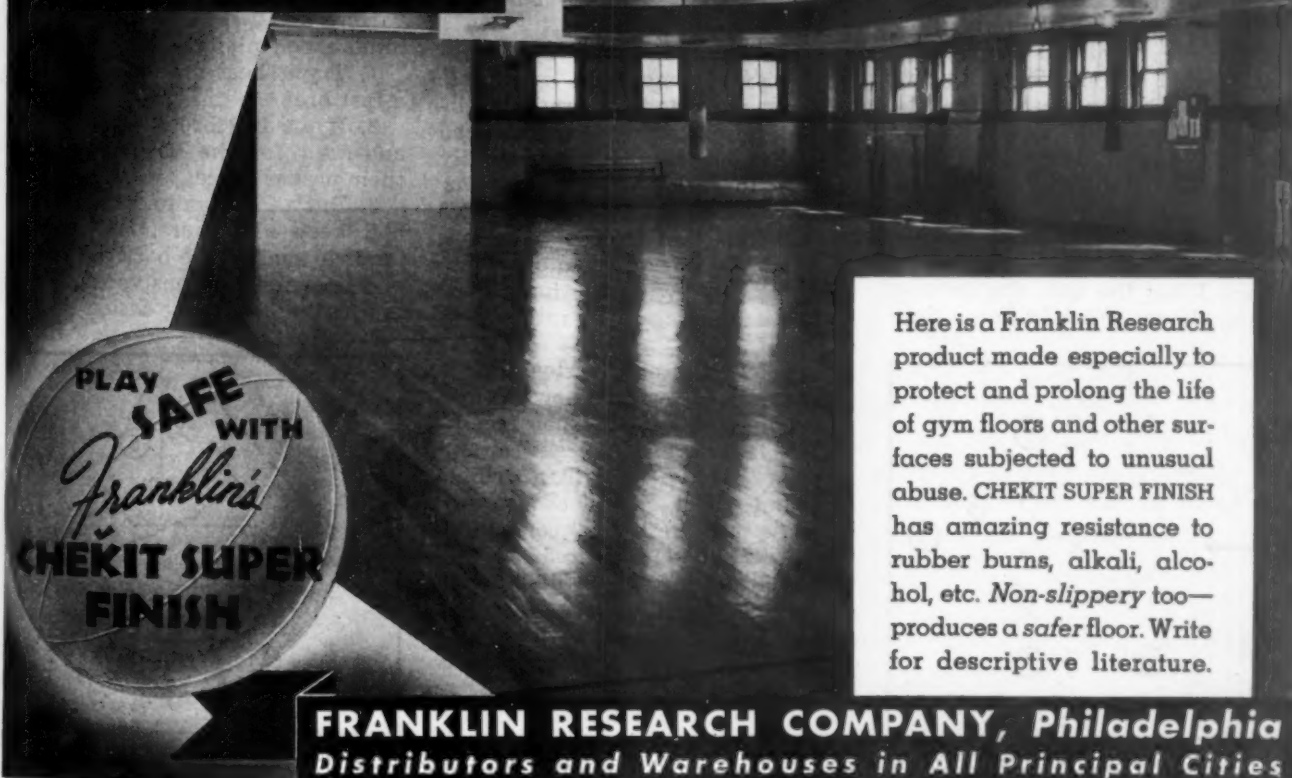
Richmond, Va., fans are justly proud of the football record made by John Marshall High School. Under Coach Dick Esleeck's tutelage, fifteen consecutive shutouts have been registered to date.

The guest speaker at the athletic banquet was Warren Brown, sports editor of Chicago's new morning newspaper. Everyone was enjoying his histrionics except one fellow far back in the crowd who kept calling, "Louder, louder, we can't hear you." Without breaking the thread of his narrative, Speaker Brown called back, "Brother, you're not missing a thing—not a thing."

We don't know whether this ought to go in the trick idea department or not, but at least it's a bit uncommon. Coach L. A. Craven claims that his Roanoke, Ill., baseball team was able to go through the season undefeated last spring because he gave all of the signals from the bench in Italian. Has anybody tried Basic English or Esperanto yet?

BILL WOOD

How to keep a gym floor in perfect condition . . .



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YOU CAN BEAT THE ZONE BY JAMMING IT

By Floyd H. Baker

Floyd H. Baker's Martins Ferry, Ohio, High School team, last season, culminated an 81 per cent winning average over a ten-year span with the annexation of the state Class A crown. In addition to his duties as basketball coach, Mr. Baker directs the department of physical and health education.

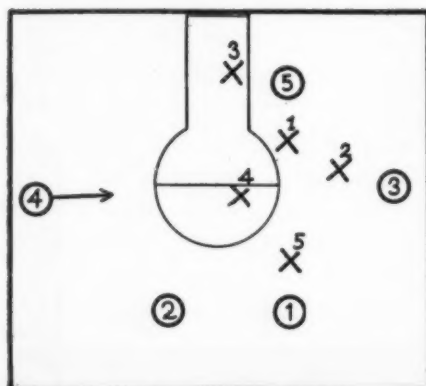
NCESSITY was the mother of my system of combatting a zone defense. Twelve years ago I started my coaching career in a school which used a small, combination stage-gym for its games. This 58 by 33 court was tailor-made for zone defense, and every visitor, regardless of what type of defense it used elsewhere, would spring it on us.

By linking hands, three big boys could almost reach across the entire width of the floor. It became evident that I would have to solve zones or they would dissolve me as a coach. I gathered all the material I could find on the subject and started attending every game in which I thought a zone might be used.

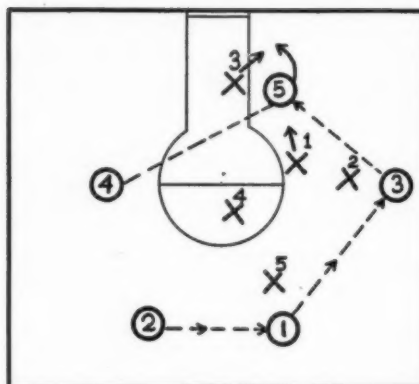
With this as a foundation, and many hours of study and experimentation as building materials, I finally evolved a number of sound, workable ideas which have given my teams the unusual record of 106 victories and only two defeats against zone defenses in nine years.

The accompanying diagrams show some of the highlights of my offense. **Diag. 1** outlines the basic formation with the center (5) along the side of the lane closest to the ball, the guards (1 and 2) never farther apart than the width of the foul circle, and the forwards (3 and 4) about six feet from the sidelines on a line with the foul line.

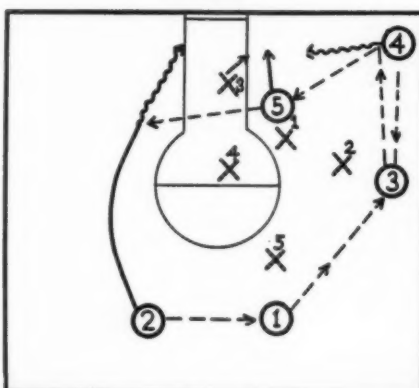
When 1 has the ball, the defense shifts as shown, necessitating a slide



Diag. 1



Diag. 2



Diag. 3

by 4 almost to the foul circle. This shift betrays the zone if the ball is passed swifter than the changing pattern.

Diag. 2 illustrates one way the defensive shift may be exploited. Working in counterclockwise fashion, the offense moves the ball ahead of the defense. The ball goes swiftly from 1 to 3 to 5, who shoots or quickly passes to 4, as X1 and X3 try to trap him. No. 4, who has taken up the slack, has an open shot from close in. What we have done here is jammed the zone rather than spread it.

Our system of overloading is shown in **Diag. 3**. No. 4 now deploys in the opposite corner. Upon receiving the ball he may (1) get set and shoot, (2) drive in with a dribble and jump-shoot, using 5 as a screen, (3) pass back to 3 if X2 comes into the corner, or (4) pass to 5.

The latter may shoot if he has position on X3 or, if X3 is between him and the basket, pass to 2 who breaks around for a layup. No. 2 starts his cut as 5 gets the ball. If 5 shoots, he (2) is thus in position for the rebound. Again we have jammed or bunched the zone.

The presence of a tall man under the hoop tends to suck in the back of the defense

We have outlined two good ways in which the offense may get under. Now for a system of following up the shots which will outmaneuver the defense, paralyze the fast break threat and provide an effective scoring threat.

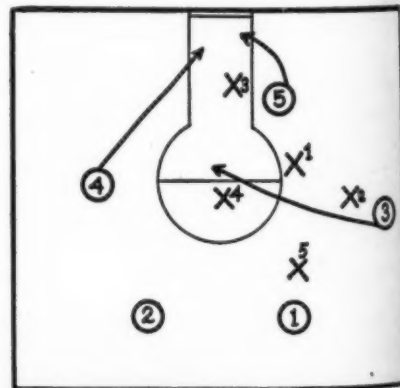
In **Diag. 4** let us assume either 1 or 3 takes a set shot. The zone will usually be found in the position shown; overloaded on one side. For the offensive team, 5 is always on the ball side of the lane and always behind the defense. Nos. 1 and 2 never follow up any shots. They may dribble in or maneuver as in the preceding diagram, but never follow up. They stay back to cope with the opponents' fast break.

After the shot, 3 follows up to the foul line. Due to the massing of the zone, it is usually impossible for him to penetrate any deeper. No. 5 turns to the outside, always watching the ball, and covers his side of the lane. No. 4 goes in on the opposite side for the rebound, unhindered, as the zone is strung out on the opposite side.

In this manner, 5 and 4 have a two-on-one rebound setup on X3. 3 gets in on all the long rebounds down the middle or taps to any offensive man, and 1 and 2 are ready to stop a fast break or take a back pass.

Here are a few points to keep in mind when playing against a zone:

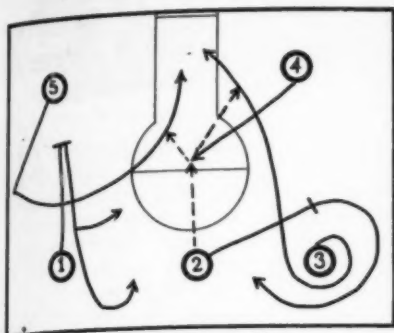
1. Try to beat the zone, first, with a fast break.
2. If the fast break fails, slow up and wait for the boys to fall into their proper places.
3. Put a tall man under the basket and keep him there. His presence tends to suck in the back of the zone and thus makes offensive maneuvering in the backcourt easier.



Diag. 4

All-Purpose Offense

(Continued from page 8)



Diag. 6, Variation

maturely. (Nos. 1 and 2 in diagram.)

The jump-ball play in Diag. 4 is worked a little differently. The jumper back taps here to one of the guards, and upon reaching terra firma scoots around 4. While the ball is being whipped to 4, 1 tries to run his man into the post set up by 5. The ball-handler, as usual, then has the choice of passing to either 1 or 2.

Against an all-court defense, which many teams use when behind in score with only minutes to play, the system functions as shown in Diag. 5.

After the players have become accustomed to and perfected the basic play, the same maneuver may be worked from the other side of the floor with 5 as the spearhead. Later on many variations of the basic play may be developed. For instance, 2 can screen for 3, or 1 can cut to the middle instead of to the outside, or perhaps screen for 5 (Diag. 6).

Screen Escapes

(Continued from page 7)

thereby leaving no room for the opponents to pass through.

By constant faking of the ball and body, the offensive player may bump his man into another player or at least impede him long enough to discharge his regular duties.

A word in connection with the activities of the three remaining offensive players: Upon perceiving the ball-handlers in trouble, they should not stand still and wait for the ball. At least one of them should backtrack to help out. A fast cut into the frontcourt followed by a sharp reverse will invariably shake the player loose.

Once he gets in the clear, the burden is on the defense. For the ball-handler may feint, shoot a pass to the clear man and dart away from the guard.

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New Books on the Sport Shelf

TIPS ON GIRLS' BASKETBALL. By Ada B. Kennard. 31 plates. Illustrated—drawings and diagrams. Detroit: Sport Tips and Teaching Aids. \$2.00.

THIS attractive, 8½ by 11 inch, plastic-bound manual may well serve as a complete course of instruction on girls' basketball. The neat loose-leaf arrangement facilitates the organization of the material into units which can be removed at will for desk use and for bulletin-board display.

The book itself is organized into these sections: fundamentals, offense, defense, practice drills, scoring, and refereeing. The sequential presentation is practical. The fundamentals are analyzed clearly and concisely before the reader is introduced to team play. Large, graphic drawings, based on progressive action pictures, serve as a basis for the analysis.

Particularly valuable are the sections on practice drills and officiating. Coaches of varsity teams and physical education instructors will find this book a splendid device with which both to plan and supplement their practice periods.

SWORD PLAY. By Scott D. Breckinridge and Scott D. Breckinridge, Jr. Pp. 100. Illustrated—free-line drawings. New York: A. S. Barnes & Co. \$1.75.

THE authors present accurately and thoroughly the basic principles of the French school of the foil. They indicate the practical application of these principles to competitive fencing and point out a number of the pitfalls that await the unwary.

In addition to the actual instruction, the book contains particularly valuable material on exercises and a chapter on class instruction. A fencer thoroughly grounded in the basic philosophy and technique of the French and Italian schools is better prepared for a course of steady improvement than the individual with only a vague conception of the purpose and performance of either.

Dr. Breckinridge (Senior) was coach at the University of Kentucky from 1927 until his death in 1941. His son and co-author is a former Kentucky fencing captain.

AN APPRECIATION OF PHYSICAL EDUCATION. By Helen Ann Pendergast, Pp. 165. New York: Prentice-Hall, Inc. \$2.50.

THE chairman of the women's division of physical education at Louisiana State University has designed this book as a manual for col-

lege freshmen and other nonprofessional students in orientation courses in physical education.

The combination text and workbook may be used as a reading reference, a guide for class discussion and a notebook for student use during lectures, appreciation lessons and periods devoted to counseling with an advisor.

The first part of the book contains the actual text. It is written simply with the definite idea of winning the nonprofessional student's confidence. The aim has been to challenge the student-reader, not to inform in an academic way the prospective teacher. Questions and projects following each chapter facilitate discussions and increase student participation.

Part two consists of outline forms to assist the student in recording interesting notes on various activities of the physical education program.

THE AMERICAN SPORTING SCENE. By John Kieran and Joseph W. Golinkin. Pp. 212. Illustrated. New York: The Macmillan Co. \$5.

HERE'S a book that will take your breath with its sheer pictorial elegance. Joseph Golinkin, who is perhaps the outstanding artist on the American sporting scene, has really done a job. More than 80 of his magnificent water colors, lithographs and charcoals illuminate the text.

Some of his full-page (8 by 10½ inches) water colors almost blind you with their vivid, realistic hues. Art lovers who've been tortured lately by Dali and Picasso will find Golinkin and his remarkable fidelity to detail, a welcome relief.

The text itself is the contribution of "that noted authority on sports," John (Information Please) Kieran. In his free, gently humorous style, he spins yarn after yarn about famous figures in such sports orbits as boxing, baseball, tennis, horse-racing, golf and football.

The book makes fascinating reading and delightful seeing. As a gift item, it's a knockout.

THE QUACKENBUSH METHOD OF SCALING FOOTBALL ASSIGNMENTS. By Dyke L. Quackenbush. Natick, Mass.: Dyke L. Quackenbush.

FRIENDS of the author, who've been wondering what he's been doing with his spare time the past five years, will find their answer in this 5 by 7 inch, nattily-bound loose-leaf book.

The Natick High School coach has perfected a truly ingenious method of

organizing football assignments for concentrated player-coach study. The scheme is simple. First, you reduce your offensive assignments into an abbreviated code where, for example, RE stands for right end, RT for right tackle, LDB for left deep-backer, etc.

Next you transfer the symbols for every play onto a master sheet or card. And, finally, you transfer the complete assignments of each player onto a card for individual study.

All this may sound a little complicated but the author shows you exactly how to do it. He designs the code, gives a key to every possible assignment and shows you how to lump the assignments on attached cards.

TIPS ON FIELD HOCKEY. By Mary Laird Brockett. 69 plates. Illustrated—drawings and diagrams. Detroit: Sport Tips and Teaching Aids. \$2.00.

LIKE *Tips on Girls' Basketball*, Miss Brockett's volume is 8½ by 11 inches, plastic-bound with removable units. The author shows the techniques and fundamental principles through the use of illustrations, diagrams and charts.

Also given are the numerous points involved in stick technique, correct line-ups and team plays, together with clear-cut explanations and interpretations of the rules.

An effort has been made to illustrate and explain each step of the game so that the beginner will have no difficulty in understanding the essential details and plays.

In a field in which there has always been a paucity of detailed and illustrated teaching literature, *Tips on Field Hockey* comes as a godsend. It offers the coach a valuable instrument in teaching the game quickly, easily and intelligently. Any part of the valuable material may be detached for personal observation and study by the student.

HOW TO PLAY BETTER BASKETBALL. By Ralph Henry Barbour and La Mar Sarra. Pp. 110. Illustrated—diagrams. New York: D. Appleton-Century Co. \$1.50.

LIKE the other collaborative efforts of the authors, *How to Play Better Basketball* does a nice, neat job of presenting the fundamentals of the sport in a manner calculated to appeal to boys of junior and senior high school age.

The fundamentals include all phases of ball-handling, the correct manner of receiving, dribbling, footwork and

(Concluded on page 37)

The Crawl Stroke

(Continued from page 19)

finely coordinated action brings it above water, flexed.

In the flutter-kick crawl, the knees are slightly flexed rather than stiff. The abdominals, which come into play vigorously during hard kicking, are in constant contraction. They tend to flex and increase the arching of the spine.

The central source of power lies in the muscles of the back and abdomen, which act to flex and extend the thigh upon the pelvis. Except on the up kick, maximum efficiency is obtained when the ankles are loose.

There are sharp extensions of the foot at the ankle joint by the gastrocnemius and the soleus (see illus. page 18), with the sole of the foot pushing the water forcefully backward. During the up kick, the posterior extensors (lower back extensors) come into play to lift the leg.

In regard to fatigue localization, we find it occurs mostly in the quadriceps group (front of thigh). The rectus femoris, the most important member of this muscle group, is considerably affected by the downward sudden kicking movements.

It should be remembered that all these movements are part of one of the most finely coordinated actions the human body can make—in an environment different than that on land. For all-round muscle development and a fine kinesthetic sense, there are few better exercises.

Swimming Diet

(Continued from page 23)

of fish, cheese, poultry, dried peas, beans, or nuts.

Vegetables: Potato, or macaroni, spaghetti, noodles or rice once a day; 2 servings other than potatoes, 1 cooked and 1 raw.

Milk: 4 glasses.

Eggs: 2.

Fruit: 2 servings, 1 an orange, grapefruit, or tomato; the other fresh, frozen, canned, or dried fruit.

Fats: Butter, 2 tablespoons; lard or other fat (not hydrogenated) 1-2 tablespoons.

Cereals: Once; bread at each meal.

Foods rich in starch, sugar, and fat should make up the individual energy requirement. Dessert and other sweets should be eaten at the end of the meal so that they do not dull the appetite and displace other foods, especially milk, fruit and vegetables.

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Coaches Built America's First Line of Defense

By **L. B. ICELY**, *President*
Wilson Sporting Goods Co.

LONG before the present American defense program assumed proportions that make it the most outstanding event in our history, the coaches of school and college teams were building its main foundation—the health and stamina of American youth.

Today the coaches are more than ever a first line of defense in the preservation of democracy and the American way of life.

School teams and college teams have dramatized the active outdoor life and have been the incentive that has made sport and exercise an attractive part of the day's program for millions of individuals.

America is active. America is out of doors . . . and as a result, America is confident in a world where country after country has gone down under the conqueror's ruthless heel.

For the fact that our morale is high and our people are ready for the task ahead, we may in great degree thank the coaches who have labored long hours to build stamina into our young people and to produce contests of such dramatic character that they have stirred the entire nation into action.

Our confidence in the outcome of present events is largely based on health. It is the mass conviction of a nation that has always been a strong athletic nation and is now more interested in sport than ever before in its history.

The athletic fellow has in his physical strength the basic element of courage and confidence. When such individuals by the millions are found in a country's population, and its women are strong and athletic, too, that country has strength, courage and confidence in everything it faces.

Certainly we have our problems, troubles, apprehensions; but have you heard *real fear* expressed by many people? Have you

heard anything but confidence expressed about the eventual outcome as far as America is concerned?

For this high morale of the nation, coaches can take a major portion of the credit. We know our industrialists can build the machines to make us supreme in mechanized warfare. It is coaches who have built the men capable of manning them.

Inborn love of athletics and of strenuous competitive games has kept American youth athletic in mind and body. That is primarily the reason our navy is ready and our army rapidly growing into a formidable fighting machine. That is primarily the reason we may be sure that we shall not fail in shops and factories to live up to the proud task that has been assigned to us as the "arsenal of democracy."

In a world living under the threat of domination by powerful ruffian nations, America must *keep* strong. Not only the boys who go into the army and navy, but the whole civilian population as well, must maintain and improve standards of health and stamina.

Some 200,000 of those called up for army service who have fallen below the physical standards required in the emergency will have the opportunity under Uncle Sam's direction and care to climb right back into the self-confident ranks of the strong and sturdy.

Civilians also, on almost all of whom depends in some degree our ability to help the embattled democracies and to defend American institutions and free ways of life, will maintain and improve their stamina and the national morale by increasing participation in health-building athletics and competitive sports.

Our enormous program for the building of needed defense equipment will be paralleled by the building up to still higher

standards the physical strength of the people. With stronger bodies will come still greater confidence, still stronger morale. More than ever, "America is out of doors," and America is out to win.

I make this statement with the confidence born of many years of observation at one of the liveliest "nerve centers" of American sporting life.

As president of Wilson Sporting Goods Co. I have watched the keen, steady growth of American interest in all fields of sport and with my associates have had, I believe I may say, no small part in the encouragement and direction of this important trend through the improvement and development of modern implements of sport and exercise. Better equipment, I think no one will deny, has been one of the most important factors in increasing the attractiveness of play and exercise among America's millions.

The better material and better design that goes into today's golf clubs and balls, tennis rackets and balls, football, basketball, baseball, softball, badminton, squash, handball and gym equipment provides an incentive greater than ever known before for an active, healthful life. Such equipment, therefore, serves a purpose as vital to a strong, confident, enduring America as the materials now pouring into our formidable output of guns, shells, ships, motor vehicles, tanks and planes.

Our defense effort in the production of mechanical equipment for army, navy and air force is of value only as we produce also strong, alert, and courageous people to man such equipment, and a high morale in our citizenry to back them in action. Only a strong and rugged people makes defense possible and makes this great defense effort worth while.

It is my belief and the belief of every specialist in this field with whom I have ever talked, that everything that encourages national consciousness of health and the benefits of physical exercise is important to national welfare in time of peace, and vital to the country's safety and survival when there is threat of war.

The freedom of generations to come may be dependent upon the American interest in athletics and sports and our ability to increase this interest as a part of a nationwide health-building program **NOW**.

NATIONAL FEDERATION NEWS

THE fan-shaped basketball backboard which is now the standard official bank is being rapidly installed in the high schools and in many of the colleges. The legalization of these banks has also greatly contributed to economy in the preparedness program.

The federal government has found that the smaller boards can be installed in the army and navy camps and gymnasiums at less than half the cost of the old type board and bridge-work. The board has been adopted by both forces in their specifications for camp and armory equipment. Recently a carload of the boards was shipped to Iceland; they are also appearing in outposts at Panama, Alaska, Bermuda, and the Pacific Islands.

Track and Field Rules: The Inter-scholastic Edition of the Track and Field Rules will be published during January and will be available well in advance of the track season. They will be distributed through the state high school offices or may be secured direct from the National Federation office.

The book will contain the rules which were made jointly by the National Collegiate and National Federation representatives. There will also be articles and statistics relating to interscholastic meets.

Missouri: A recent issue of the *Athlete* describes activity in connection with the regulation of literary and music events. An activities committee has been formed. This committee is not a definite part of the high school athletic association but there is a close relationship between the two groups. Carl Burris, who is executive officer of the athletic association, is also secretary of the activities committee. The details relative to the literary and music activities will clear through the office of Mr. Burris.

H. R. Dieterich, an experienced member of the National Football Committee, has been re-elected to the state Board of Control.

Connecticut: The fan-shaped backboards will be used in the state final basketball tournament.

The Collector of Internal Revenue in the Connecticut area still appears to be insisting that high school students be segregated in an inferior section of the bleachers, if they are considered exempt from paying a tax on the full adult admission price.

Consideration is now being given to changing the constitution to permit membership by parochial and private schools.

President H. A. Swaffield expresses concern over the increasing emphasis on pre-season football practice. He states that it will probably be necessary for the state to set a time limit on the beginning of such practice.

Ohio: A referendum vote is being taken to determine whether the schools want the state high school athletic association to contribute

\$6000 a year for a proposed study of the influence of high school athletics on the welfare of the participants. A Technical Committee has been considering the matter for more than a year. If the high schools decide to finance the project, a study director will probably be appointed to carry on the investigation over a period of years. Such a study would supply facts for the use of other educational study groups and assist in finding answers to questions such as the following:

EDUCATION:

1. Does the athletic program favorably influence scholarship through greater motivation or unfavorably?
2. Does the present program favorably influence pupils to continue their education?

PSYCHOLOGICALLY:

1. What effect does an athletic program have upon the personality of students — both participants and non-participants?
2. Does the objective of cooperation and teamwork carry over from athletics to other fields?

SOCIOLOGICALLY:

1. Are athletes more successful in later life than non-athletes?
2. Are they more interested in civic affairs?
3. What effect does athletics have upon a community and vice versa?

PHYSIOLOGICALLY:

1. Does the present program favorably influence the health of athletes as compared with non-athletes?
2. Does it affect their health in later life?

Kansas: Although the javelin throw has been eliminated from the track programs of 21 states, Kansas schools recently voted to retain this event.

A study of the High School Activities Association is being made by the Research Committee of the state legislature. Information is being gathered relative to the method of operation of similar state high school associations. The study is being made with the cooperation of the state high school officers. There is every reason to believe that it will furnish some interesting and needed information for members of the legislature.

Kentucky: The cost of protection under the athletic accident benefit plan is one dollar per player for football and twenty-five cents per player in each other sport.

Kentucky does not have a full-time executive officer and the duties are divided. Eligibility rulings are made by President Russell E. Bridges. The *Kentucky Athlete* is edited by the vice-president, W. B. Owen. Matters pertaining to dues and other correspondence are administered by the secretary, T. A. Sanford.



Help Nature Reduce Fatigue Acids in Sore Muscles!

You know how sore and stiff your muscles feel after the season's first skiing. Every step—every movement hurts! The reason for that pain is probably an accumulation of waste products called fatigue acids in the muscles. But, here's welcome news. Many of the muscles affected can be reached by the stimulating action of Absorbine Jr.

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A SCORER'S LOT IS NOT A HAPPY ONE

By Nolan Skiff

Next to sports editing the "East Oregonian Independent" in Pendleton, Ore., Nolan Skiff's chief occupation is scoring basketball games. In the past 14 years, he has scored over 500 high school, college and independent games.

"Far from the madding crowd's ignoble strife

Their sober wishes never learned to stray;

Along the cool sequestered vale of life
They kept the noiseless tenor of their way."

THERE, in Thomas Gray's *Elegy in a Country Churchyard*, of all places, you have a picture of the perfect basketball scorer: unobtrusive, indefatigable, imperturbable, and incorruptible. Though thankless, his job is none-the-less essential to the administration of the game.

Technically, the scorers are not officials. They are assistants to the officials. The home team supplies the official scorer. But the visitors' representative is usually right at his elbow.

The coach should exercise extreme discretion in his choice of scorer. A poor selection works untoward hardship on the officials, and by a "skull" may affect the outcome of the game.

The scorer should know basketball, especially the code of rules. His duties are outlined in Rule 6, Section 1. The National Federation's *Manual for Basketball Scorers* appears on this page.

A former captain or varsity member may well serve as official scorer. Or a basketball-wise faculty member, townsman, sportswriter, assistant coach, or team manager may be pressed into service.

The scorer should arrive early on the scene to get the complete lineups from both coaches. He may then consult with the officials for special instructions and to clear up any hazy points in his mind.

The scorer keeps a complete factual record of each player's participation in the game. He keeps a running score, checks all fouls and violations, field goals, free throws, and, in general, records in black and white everything essential to the course of the game.

If he is the official scorer, his duty also includes the ferrying of replacements into action, at the same time checking that no player re-enters more than the legal number of times, and keeping a record of each

He must keep a complete factual record of each player's participation in the game

MANUAL FOR BASKETBALL SCORERS

Equipment

Scorebook. Pencils. Electric siren or other device equally as effective. Substitution slips.

Note: These slips, supplied to each coach before the game, should give the name and number of each substitute. The substitute leaves his slip at the Scorer's table and presents to the Official the slip for the player he is to replace. The Official hands the slip to the player who is leaving the game.

Insist on having a conveniently placed bench and good equipment.

Starting Each Half

BEFORE THE GAME:

Provide opportunity for coaches to submit lineup at least two minutes before game time.

Do not permit changes in lineup until after a play has ensued unless there is an injury or other emergency.

Report to the Referee if the lineup is not submitted on time.

As play is about to start, check the five players who appear to be ready to start and their numbers with the lineup in your book.

Notify Referee of any discrepancy. It is not necessary to wait until he has tossed the ball.

BEFORE THE SECOND HALF:

Check starting players with your line-up and report to the Official if any new player is starting without having reported to you.

Communication with Officials

NOTIFY NEARER OFFICIAL:

1. When a team has had five charged time-outs.
2. Immediately when a player is charged with his fourth personal foul.
3. As soon as the ball is dead in case there is a dispute about the score or in case there is doubt about an Official's decision.
4. As soon as ball is dead or in control of offending team if a player is discovered who has not reported to the proper officials or who has changed his number without reporting it or who is illegally in the game.

The official will indicate the number of free throws to be tried by standing in the lane with fingers held up. The number indicates how many free throws remain.

He will indicate a personal foul and the player who fouled by some system which he should explain to you before the game starts.

Scoring Technique

Become familiar with the technique outlined in your scorebook.

FUNDAMENTALS:

Use: P for personal fouls

T for technical fouls

2 for each field goal

0 for a free throw attempt and X inside the zero if the try is successful

C for waived chance (complete the O if not waived).

Have running score available at all times and check scoreboard.

List number of charged time-outs for each team.

Making Substitutions

When a substitute reports, signal as soon as the ball is dead.

Allow substitute to go on court only when Official signals (usually by a nod to Scorer).

Do not signal after ball has been placed at the disposal of a free thrower. In the case of a multiple throw or throw for a double foul, a substitution may be made between throws. If the thrower is to be replaced, be sure that it is permissible for another player to attempt that particular throw.

QUESTIONS:

May the Scorer signal for a substitution when the ball is in possession of the substitute's team but not dead? Answer: No.

Should Scorer sound horn if substitution is made when time is out? Answer: Yes.

Miscellaneous

Do not take chances by guessing at the Official's decisions. If there is doubt relative to data which must appear in your book consult the nearer Official as soon as the ball is dead.

SITUATION: In a Tie Game with score 20-20:

1. The first (or subsequent) overtime ends A 21—B 20. Ruling: Team A is the winner.
2. The first overtime ends A 21—B 21 and in the second overtime A scores one point. Ruling: The point does not immediately end the game.
3. In the second overtime a double foul occurs and both free throws are made, leaving the score still tied. Ruling: One additional point may end the game.

team's time-outs. On infractions over which he has jurisdiction, he informs the referee—usually by horn or siren—who imposes the particular penalty.

Where there is more than one version of the score, the official scorer's book is the final arbitrament. The official scorer is also charged with the responsibility of consulting the referee at the first "legal" moment, whenever discrepancies in scoring cannot be accounted for.

One of the most disliked duties of the scorer is calling the referee's at-

tention to a player who has entered without reporting. The penalty is a free throw. Many times a point thus scored provides the margin of victory.

A player entering the game while it is in progress seldom overlooks reporting as he must wait for the scorer's signal for the opportunity to report to the referee. But even this can be overlooked under pressure.

The writer recalls the finals of a hotly-contested district tournament in which the score was tied and only

a couple of minutes left to play. A substitute, in his zeal to enter the fray, darted in directly from the sideline. Strangely enough the officials failed to notice his unorthodox and illegal entry.

The scorer, amazed at this flagrant violation, blew blast after blast on his whistle, but the uproar of the crowd drowned him out. The game continued to an end with six boys on one side and five on the other. The five-man team, however, shot the winning goal. After it was over, they waived the free throw. What would have happened if that single point could have had a bearing on the score, is not difficult to conjure.

Wanted: a diplomat

Scoring, occasionally, is something of a trial, apart from the routine phases of the job. Situations which are not covered in the book constantly arise to plague the keeper. Unless he knows how to handle these problems with a reasonable degree of tact and fairness, he may suddenly find himself in the center of a boiling cauldron.

The writer knows one fairly prominent college coach who frequently forgets himself so completely in the heat of a close game, that, while readying a replacement, he will attempt to hold up the game. Meanwhile the scorer must take the abuse. The coach will stand up, turn to the scorer and loudly demand that he blow the whistle. Upon being informed that the player should report only when actually ready to enter, he becomes offended.

Veteran scorers working this coach's games always win these tiffs, but the subterfuge often works on less experienced bookkeepers. The writer once saw a high school coach try the stunt in a close game. His scorer, sitting beside the official recorder, went so far as to grab a whistle and toot it loud and long. The game stopped, but some explaining was necessary before the matter was ironed out to the referee's satisfaction, much to the embarrassment of the offender and the detriment of his team.

Scorers or timers equipped with whistles or horns are not supposed to blow them until the ball is dead. Yet there are times when a timer or occasionally a scorer may illegally but justifiably halt a game. He may see a serious injury occur that the official misses. Although stopping the game may be illegal, it is the humane thing to do.

Most scorers, the writer has found, prefer a fast game to a slow one. One of the easiest games the writer ever scored was a 40-minute en-

gagement between two college teams which ended 76 to 68. The players sank one out of every three or four shots. That is nearly four points a minute to record, along with substitutions, etc., but, paradoxically, the game was easier to work than many a contest which ended in low figures like 14 to 10.

Most scorers enjoy a free-scoring contest. The kind they dislike is the free-substitution imbroglios, where there are more replacements than the book can accommodate. This really makes the job tough, what with names here and there on margins and feverish searching every time a "surplus" player sinks a basket, attempts a free throw or commits a foul.

Naturally the scorer doesn't expect the coach to limit his replacements for the convenience of the scorer. But many a fervent prayer has been offered up for a few more of those dotted lines. Many scorebooks have room for only 10 or 12 players, and you know how coaches work in their early-season tilts. They frequently send in as many as three full teams. By the time the final gun sounds, no one but the scorer himself can intelligently interpret the hieroglyphics.

Beware of twins

There are other things which can torment the scorer. Not so many years ago a pair of identical twins—Paul and Vincent Newlin—roamed the floor for La Grande, an eastern Oregon high school. Even relatives had difficulty distinguishing one from the other. The only thing that saved the scorers from committing hari-kari was the numbers on their jerseys.

The scorer had to concentrate on these numerals, as both figured regularly in the scoring plays and both played a fast-breaking game which kept them within range of the hoop a good share of the time.

Like most twins, a good-natured rivalry existed between the boys; each kept track of his points. At the finish, they would check the scorebook to see if there had been any mistakes. Once in a while they'd find something wrong. Then, unless it was rectified immediately, much would be their anguish. The scorers, however, didn't mind changing their summaries. For, despite their rivalry, the boys were absolutely honest.

In predicaments which involve identities, besides concentrating on the numbers, it's a good idea to study the particular players' outfits. Invariably some difference will be detected which will facilitate the record keeping.



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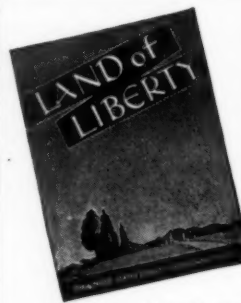
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New Books (Continued from page 30)

passes, and the various types of shots. A good chapter on offensive play, including numerous diagrams, and another on defensive play, in which both zone and man-to-man skills are tersely covered, round out the technical side of the volume.

Other valuable materials embrace conditioning and equipment, and team management (including schedule making) and officials. Most of the technical material is supplemented with practice drills.

While the author's sights are primarily aimed at the player, coaches will find much in the book to aid them.

BASKETBALL COACHES' AND PLAYERS' SCRAPBOOK. Edited by Ray Welsh. Pp. 113. Illustrated—diagrams. Detroit: Sport Tips and Teaching Aids. \$2.

THE play's the thing in basketball, judging from the tone of the letters that cross our desk; and here's a

book that's right up that alley. The author, Ray Welsh, coach of seven championship teams at Sayre, Pa., High School, has carefully compiled several hundred of the soundest offensive and defensive plays from all over the country.

In the first section, the author himself gives a complete outline of team play. He exploits every conceivable situation from combatting zone and man-to-man defenses to freezing the ball and fast breaking from myriad setups.

The second part consists of play contributions from 50 of the foremost college and high school coaches, with each man contributing from two to five plays. The book definitely serves as a source of information upon which any coach may build and improve his system.

Among the play contributors are Clair Bee, Adolph Rupp, Bud Foster, Dave MacMillan, Cliff Wells and Taps Gallagher.

Simplified Basketball Attack

(Continued from page 16)

The pick-off in **Diag. 6** works nicely into this sequence. No. 3 passes to 4 who snaps the ball to 2. The receiver may drag dribble to his right or left, using 4 as a moving screen, or feed 5, 4 or 1. Against a zone defense, we use much the same type of offense. If checked, we fall back to the set defense in **Diag. 7**.

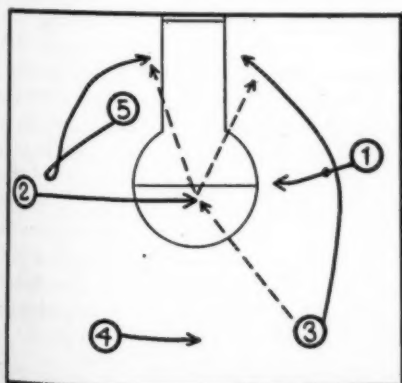
This offense works on both sides of the floor. The ball is passed from 3 to 1. The center, 5, may either cut to the corner or station himself there. No. 1 passes either to him or to 3 cutting to the edge of the foul circle. No. 2 cuts to cover his side of the basket. This sets up a triangle from which various plays are possible, all with the basket well protected.

When the opponents are shooting a foul, we line up with 3, 4 and 5

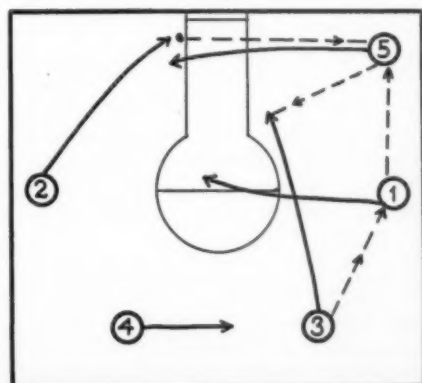
covering the shot and 1 and 2 in the corners. We try to tap or pass the rebound to 1 or 2 who immediately start driving for the basket. No. 4 steps in front of the shooter and covers the basket from the front.



Diag. 6



Diag. 5



Diag. 7

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A FAST BREAK SETUP

By R. Vance Presthus

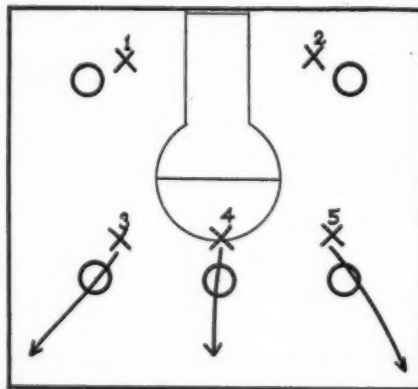
R. Vance Presthus, athletic director of the Bagley, Minn., High School, passes along a few helpful suggestions on fast break offenses.

OF THE various effects of the elimination of the center jump, undoubtedly the greatest has been the almost universal adoption of the fast, hard-driving, free-scoring type of attack—the fast break.

Even the effete East, notorious for its conservatism, has taken this weapon to its bosom. Erstwhile devotees of the deliberate, set offense are now spicing their attacks with this flavoring.

In most instances, the fast break is employed as the initial attacking weapon. Upon gaining possession of the ball, the boys strike quickly for the basket. Only when this weapon fails do they go into their deliberate continuities.

There are a number of ways in which this quick-striking power may be marshalled. Perhaps the chief method lies in a strategic distribution of the players on defense. A good setup facilitates the recovery of rebounds and wild passes, and enables the boys to capitalize on them immediately. The two strongest rebounders (1 and 2 in the accompanying diagram) must be relegated



to the rear line, while the three fastest men, 3, 4 and 5, play in the front line.

The boys don't necessarily have to play zone defense. For example, against an offense such as that of the University of Minnesota, who play three men out and two in, an orthodox man-to-man may be played. Since the two attackers who are playing "in" seldom move into the backcourt, the defensive rebounders (1 and 2) taking them can be assured of favorable positions for their forte.

If the offense shrewdly tries to

keep 1 and 2 out by shifting the "in" men back and moving two normal "out" men in, there is no reason why the defense cannot counter with a switch, so that the big men are always playing the "in" men, no matter who they are.

A single pivot offense, with the pivot in the keyhole, is a tougher proposition. This type of alignment makes a three-two defensive alignment unfeasible. The pivot must be guarded closely. In this situation, the defense will either have to play straight man-to-man or straight zone.

For fast breaking purposes, zone is preferred. The reason for this is that in a man-to-man defense the player guarding the pivot must stay behind him. In a zone, he may play more to his front. He is thus in better position to intercept passes and fast break.

Once a rebound or bad pass is recovered, the recoverer (1 or 2) passes immediately to 3 or 5, who break for the sidelines away from the mid-court tieup. The best type of pass for this occasion is a leaping hook.

To minimize the danger of long, uncertain passes, the cutters are cautioned against breaking past the center line before receiving the pass. No. 4 breaks down the middle after delaying an instant to see if the rebound is coming his way.

Short, hard passes are recommended. Cross-court passing and dribbling are permitted only when there is no other alternative. Dribbling appears a much faster way of advancing the ball than it really is, avoid it as it definitely slows up the fast break.

Another factor, anticipation, must be constantly emphasized. That is, 3, 4 and 5 must develop the ability to start the instant they're certain 1 or 2 will get the ball. A player with a good anticipatory sixth sense can usually pick up the all-important one or two step advantage over his opponent. However, there is a danger here. Some forwards, anticipating the recovery, may miscalculate and break too soon, with the result that the opponents may make a snappy recovery and a quick score. The forwards should never leave their men until they're absolutely sure of the recovery.

Players 1 and 2 are really the key men in the attack, as control of the

(Concluded on page 40)

Football Rules Proposals

(Continued from page 15)

day when touchbacks were awarded on the slightest provocation?

In evolving a logical code based on a planned philosophy, the Interscholastic Football Committee has taken many progressive steps. The result is much simplification, greater safety and a more popular game. Further improvements are possible. With reasonable assistance from the football men of the country, there is every reason to believe that the Committee will finish the job.

Rules proposals for 1942

The National Interscholastic Football Committee will meet in Chicago on January 8, 9 and 10 to formulate the code for next season. Some of the proposals that will draw the light of investigation include:

1. Make one rule cover all 3 free-kicks:
 - a. For free-kick after fair catch permit ball to be kicked from anywhere along the proper yardline (between the inbounds lines).
 - b. If any free-kick is out of bounds between the goal lines, permit B to take the ball at the inbounds spot or on the yardline 20 yards from the kick (same as present kick-off).
2. Prescribe that ball remains dead:
 - a. For snap infractions such as: fewer than 7 men on the line; player prostrate at the snap; illegal position of linesman; teammate of snap receiver less than 1 yard behind line.
 - b. For those in a and also "off-side."
3. Eliminate:
 - a. Return-kick.
 - b. Fair catch.
4. About pass interference by B:
 - a. Make penalty loss of 15 from previous spot and 1st down for A.
 - b. Remove the extra 15 yard penalty when interference is also unnecessary roughness or else add 15 yards to loss when same act is by A.
5. When kickers are first to touch kick:
 - a. Kill ball as soon as illegally touched.
 - b. If a is not adopted, kill ball as soon as kickers are in possession.
 - c. Make penalty loss of 15 from previous spot.
6. When fouls between downs occur at approximately the same time (before the stakes are moved), let penalties offset.
7. When a foul occurs prior to a forward pass or kick from behind the line or during any loose ball from

scrimmage, penalize from the previous spot (as at present), except that if the foul is by the offense and is behind the previous spot, penalize from the spot of the foul.

8. About a forward pass which is completed behind the line:
 - a. After such pass, permit player to run, pass or kick.
 - b. Treat such a pass the same as a handed pass.
9. If 2nd pass from behind the line is not legalized, prescribe distance penalty of 5 yards for all 3 illegal passes.
10. When pass is incomplete behind

passer's own goal line (not intentional), prescribe loss of down only.

Six-man proposals

11. Eliminate the return-kick.
 12. Base the Six-Man Rules on the Interscholastic code. Publish these in a separate six-man rules book.
 13. Provide protection for the catcher of a kick by prohibiting a tackle:
 - a. While he is still in an unprotected position.
 - b. Until he has taken two steps.
- All these proposals are incorporated in the annual questionnaire now being widely circulated. High school men are being asked to vote yes or no on each of these propositions.

BUY BAKERS' BREAD
Bakers' bread is rich in nourishment,
delicious, economical.
Eat Bread with Every Meal
Copyright, 1941, by Standard Brands Incorporated

All-Electric
BASKETBALL SCOREBOARDS
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Write for free literature
CEDAR KRAFT COMPANY
CEDAR SPRINGS, MICHIGAN

TOP PERFORMANCE
LONGEST WEAR
LOWEST COST
VOIT RUBBER COVERED
SPORTS EQUIPMENT
P. O. Box 11, Voit Rubber Corp., 105 E. 21st St., Los Angeles, Calif.
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CONGAREE MARKER
The Perfect One for ATHLETIC FIELDS
Can't Hurt Grass, Player or Spectator
Use Wet or Dry
Wash & Tie
Send for Bulletin 000
UNITED CLAY MINES CORP., TRENTON, N. J.

PRICES F.O.B.	100 Yds.	200 Yds.	300 Yds.	400 Yds.
Providence, R. I.	\$30.00	\$20.45	\$15.38	\$12.30
Trenton, N. J.	30.00	20.45	15.38	12.30
Sanderville, Ga.	25.00	20.45	15.38	12.30
E. Liverpool, Ohio	30.00	20.45	15.38	12.30
Chicago, Ill.	30.00	20.45	15.38	12.30
Los Angeles, Cal.	35.00	23.65	18.58	15.38
San Francisco, Cal.	35.00	23.65	18.58	15.38
Hawthorne, Fla.	25.00	20.45	15.38	12.30

SCHOLASTIC COACH MASTER COUPON

After checking carefully items desired, this coupon may be sent directly to Scholastic Coach advertising department, 220 East 42nd Street, New York, N. Y., from which point the advertiser will be notified of the requests.

- | | | |
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| BADMINTON TOURNA-
MENTS | FRANKLIN RESEARCH
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| <input type="checkbox"/> Entry Blank on Page 24 | <input type="checkbox"/> Information on Floor Treatment and Maintenance | <input type="checkbox"/> Illustrated Folder on Bleacher Installations |
| BECTON, DICKINSON
(25) | GENERAL SPORTCRAFT
(4) | HUNTINGTON LABS.
(See inside front cover) |
| <input type="checkbox"/> Sample: Lastez and Elastic Adhesive Bandages | <input type="checkbox"/> Hugh Forgie's Book, "You Can Play Badminton" | <input type="checkbox"/> Basketball Shot Chart Book |
| <input type="checkbox"/> Ace Athletic Manual | <input type="checkbox"/> Information on Badminton Rackets and R-S-L Shuttlecocks | <input type="checkbox"/> Basketball Coaches Digest |
| CEDAR KRAFT (39) | GOLF EQUIPMENT (40) | IVORY SYSTEM
(See back Cover) |
| <input type="checkbox"/> Information, Score Boards | <input type="checkbox"/> Circular on Indoor Putting Greens | <input type="checkbox"/> Samples: Penetrating Leather Oil, Dawhide Lacers |
| R. B. DAVIS CO. (1) | HILLYARD SALES (23) | RICHARD M. JOHNSON
(40) |
| <input type="checkbox"/> Booklet, "Inside Tips on Sport" How Many? | <input type="checkbox"/> Basketball Chart and Score Book | <input type="checkbox"/> Individual Embroidered Name Plate |
| FAIR PLAY MFG. (37) | <input type="checkbox"/> Catalog on Floor Treatment and Maintenance | KAHNFAST ATHLETIC FABRICS (2) |
| <input type="checkbox"/> Catalog, Scoreboards | | <input type="checkbox"/> Swatches, Twill-Satins |

(Numbers in parentheses denote page on which advertisement may be found)

ON PAGE 40 OPPOSITE THIS SPACE ARE OTHER LISTINGS AND FORM FOR SIGNATURE

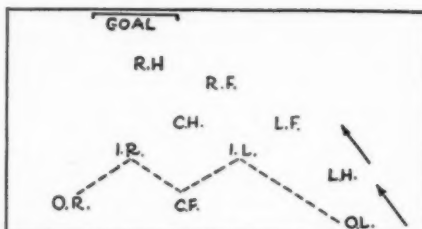
High School Soccer

(Continued from page 10)

left fullback goes up to the left half's position, the right fullback shifts over to left fullback, and the right halfback moves into the goal-mouth and becomes the right fullback.

In the meantime, both inside men come back to relay the ball up to the remaining three forwards. The forward line has now assumed a W formation. The backfield has shifted to attack the opposition and the goal has been defended. If the play is on the left side of the field the shift is reversed to the right (shown in diagram).

The arrows indicate the flight of the ball. With this formation, we can break up the play, avoid crowding in front of the goal-mouth, which might obscure the vision of the goalkeeper, and prevent a scrimmage in



front of the goal-mouth from which a loose ball might be easily scored.

In defending against a corner kick, the forwards assume their W formation positions, while the backfield sees that every opponent is covered. Once more it is the duty of the backfield to clear the ball.

Much has been said by many coaches on the subject of practice and training. Proper rest and good

dietary habits are desirable in any form of athletics. We know how difficult it is for the coach to control the activities of a boy after school hours. For this reason we are firm believers in a great deal of practice. We believe that an individual and a team can learn to control a ball only by playing as often as possible. Scrimmages should be held daily.

At the beginning of our practice sessions, the boys take places at the two goals and practice shooting. We usually have two goalies in each goal during this period. We also have some of the fullbacks and halfbacks in back of the goals to boot out the balls which go beyond the goal.

Before scrimmage we usually instruct small groups or individuals in the various skills. We also talk with the squad as a whole about the various phases of the game. During the scrimmages, we frequently stop play to correct errors in offensive or defensive play, and to make suggestions to individuals.

After the first few weeks, the group is divided into squads, varsity and junior varsity. We usually carry about eighteen boys on the varsity and all others on the junior varsity. We do not "cut" the squad. Every boy who wishes to play soccer is retained, if he is physically fit and if he attends practice regularly.

Chenille Letters
Felt Emblems • Pennants • Arm Bands
Richard M. Johnson Company
15 South St. Clair St. • Dayton, Ohio

BOXING RINGS - MATS
A complete portable boxing ring designed for school use. Set up or removed in few minutes, well constructed conforms to all rules low price. Send for full information.
NATIONAL Sports Equip. Co.
366-7N. Marquette St.,
Fond du Lac, Wis.

MASTER COUPON

(See page 39 for other listings)

(Numbers in parentheses denote page on which advertisement may be found)

- | | | |
|---|--|--|
| KNOX GELATINE
(Insert page 40) | NAT. SPORTS EQUIP.
(3-40) | STANDARD BRANDS (39) |
| <input type="checkbox"/> Winter Sports Weight Charts | <input type="checkbox"/> Catalog | <input type="checkbox"/> Facts on Bread |
| <input type="checkbox"/> Booklet on Endurance | PETERSEN & CO. (37) | G. H. TENNANT (35) |
| LINEN THREAD CO.
(19) | <input type="checkbox"/> Catalog on Gym Mats, Football Dummies, Wrestling Mats | <input type="checkbox"/> Bulletin on Care of Floor |
| <input type="checkbox"/> Catalog on Sports Nets | J. E. PORTER (2) | UNITED CLAY MINES CORP. (39) |
| G. McARTHUR & SONS
(29) | <input type="checkbox"/> Illustrated Folder, New Fan-Shape Backboard | <input type="checkbox"/> Bulletin, Field Marker |
| <input type="checkbox"/> Free School Towel Plan | JULES RACINE (35) | UNIVERSAL BLEACHERS
(2) |
| FRED MEDART (29-31) | <input type="checkbox"/> New Sports Timer Catalog | <input type="checkbox"/> Catalog |
| <input type="checkbox"/> Playground Equipment | SPORT TIPS (38) | VOIT RUBBER CO. (39) |
| <input type="checkbox"/> New Fan-Shape Backboard & Goal | <input type="checkbox"/> Complete Book List | <input type="checkbox"/> Catalog on Rubber Balls |
| <input type="checkbox"/> Telescopic Gym Seats | | WILSON SPORTING GOODS (6-32) |
| <input type="checkbox"/> Gym Mats | | <input type="checkbox"/> Basketball Catalog |
| <input type="checkbox"/> Catalog on Goal-HI | | |

NAME _____ POSITION _____
(Principal, coach, athletic director, physical director)

SCHOOL _____ ENROLLMENT _____

CITY _____ STATE _____
No coupon honored unless position is stated

December, 1941

Fast Break Setup

(Continued from page 38)

rebounds is the first requisite of a fast break offense. For this reason, it's advisable to concentrate on the essentials of effective rebounding, especially the technique of boxing out—getting the inside position on shots at the goal.

During the time the ball is in the air, most guards have a tendency to stand still and watch the flight, instead of forcing the offensive players away from the direct routes to the basket.

While maneuvering for the inside position remains the principal ingredient of a good rebound formula, timing, courage, and the technique of dribbling or passing out speedily under pressure also promote effective fast breaks and eliminate fatal tieups under the basket.

INDOOR PUTTING GREENS

A PUTT SAVER THAT WILL LOWER YOUR SCORE

A Putting Device That Gives You Natural Green Conditions

Circular on Request

GOLF EQUIPMENT CO.

1512 ROSEMONT AVE. CHICAGO, ILL.

Dealers, here's your ideal Christmas Gift.



*This Weight Chart Is Provided
by*

CHAS. B. KNOX GELATINE CO., INC.
JOHNSTOWN, N. Y.

WINTER

NAME ↓ AND WEIGHT →

Use Plus (+) or Minus (—) as Weight Changes

[illegible]

MANY LEADING COACHES AND TRAINERS SERVE

KNOX GELATINE

TO THEIR ATHLETES IN TRAINING

anges

NAME ↓ AND WEIGHT →

This image shows a full page of blank graph paper. The grid consists of small squares formed by thin black lines. A vertical fold or crease is visible down the center of the page, suggesting it might be from a bound notebook. There are no markings, drawings, or text on the paper.[illegible]

One of the country's top-notch university trainers serves Knox Gelatine to his varsity teams—requires

Trainers in many universities, colleges and high schools from coast to coast make Knox Gelatine a "must" on their training tables (or in the locker rooms), and are enthusiastic over the benefits of drinking Knox.

**If You Need Additional Charts, Write to
Knox Gelatine Co., Dept. 81, Johnstown, N. Y.**

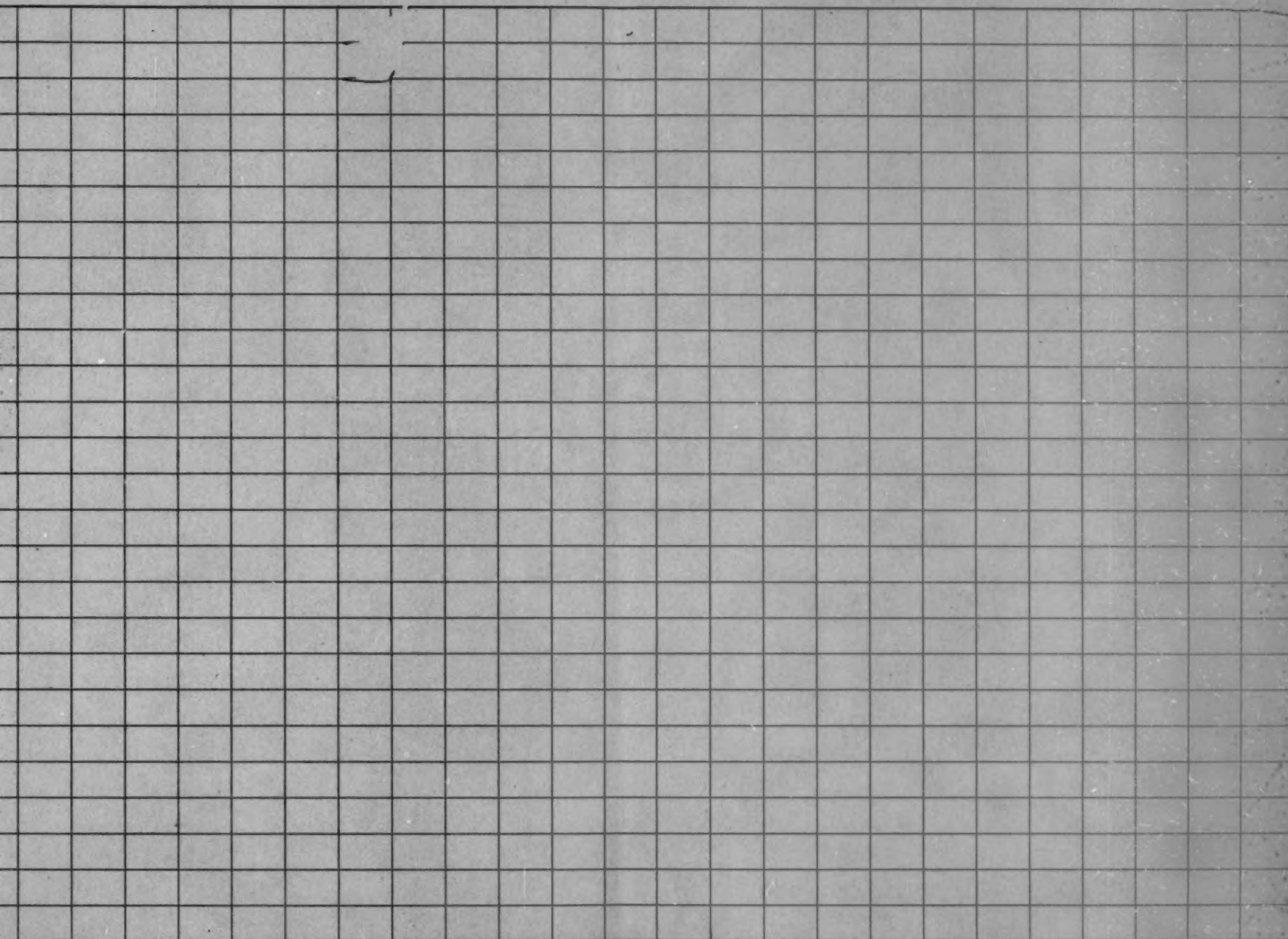
ERVE

NE

T CHART

*Post On Your Locker
Room Bulletin Board*

THIS CHART IS EASILY REMOVED FROM THE MAGAZINE



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KNOX GELATINE ROUTINE FOR ATHLETES IN TRAINING

1. Two tablespoons twice a day for 10 days. Take before and after practice period.
2. Then, two tablespoons once a day. Take after game or practice period, preferably after shower.
3. If an individual shows loss of weight, try increasing the feeding by two extra tablespoons a day.
4. The recommended way to take the gelatine is in plain water (room temperature), orange, pineapple or grapefruit juice, or the fruit juice and water may be mixed 50-50; 4 oz. of water and 4 oz. of fruit juice.
5. HOW TO MIX:
 - (a) Pour onto the liquid 2 level tablespoons of Knox Gelatine.
 - (b) Let liquid absorb the gelatine.
 - (c) Stir briskly and drink before it thickens.

THE KNOX GELATINE DRINK FOR INDIVIDUALS

(NON-ATHLETES)

Drink 4 envelopes of Knox Gelatine every day for 2 weeks, then 2 envelopes a day for 2 weeks. After that, as required. Pour 1 envelope ($\frac{1}{4}$ pkg.) Knox into glass $\frac{3}{4}$ filled with water or fruit juice, not iced. Let liquid absorb gelatine. Stir and drink immediately. If it thickens, stir again.

BASKETBALL TRAINING RULES

FROM TOP-NOTCH COACHES AND TRAINERS

PREVENTION OF STALENESS

1. The coach who recognizes the first signs of fatigue and relieves the player temporarily has taken the first and biggest step toward avoiding staleness.
2. A mind at peace with itself seldom goes stale. Game talk should be taboo at the pre-game meal. A free, relaxed condition stimulates the digestive fluids and furnishes the right mental attitude for the game.
3. Simple cases of staleness are best treated by rest, a change to some light recreation and a sympathetic interest on the part of the coach.
4. A massage might make the player feel better. Staleness is certainly not a condition that can be massaged away, but massage, particularly on an athlete who rarely receives massage—has a psychological effect. It also aids in the elimination of waste from the muscles.
5. Once the team is in good condition, practice sessions should be lightened.
6. After hard competition, rebuilding is accomplished by a short layoff, a full diet and complete mental relaxation.
7. If the team shows evidence of mental slumping, switch from the grind of fundamentals to games which will require less physical effort and will furnish mental relaxation.
8. The player exhibiting symptoms of staleness should be given light workouts until he has regained his full dash and enthusiasm for the game.

BUILDING RESERVE

1. Reserve is attained through a program of progressive practice which will condition the muscle structure and circulation to withstand all demands made upon them.
2. Condition is attained by a gradual approach.
3. The work that counts most is the work put in after the onset of initial fatigue. Be careful, however, of not pushing beyond capacity.
4. In a game take advantage of opportunities to relax. This is not the same as loafing. It is merely a distribution and investment of energy to get the most out of it through the game as a whole.
5. Players should be rested when they come to practice. Avoid any strenuous activity either before or after practice periods and games.
6. Before the season, a good deal of running and stomach exercises will get candidates in shape.
7. Meals should be eaten at regular hours. Eating should be slow and nothing eaten between meals. Rich, hard-to-digest foods should be avoided. At least a quart of milk and a quart of water should be consumed daily.
8. Abstain from alcohol and tobacco.

HOW TO COMBAT A COLD

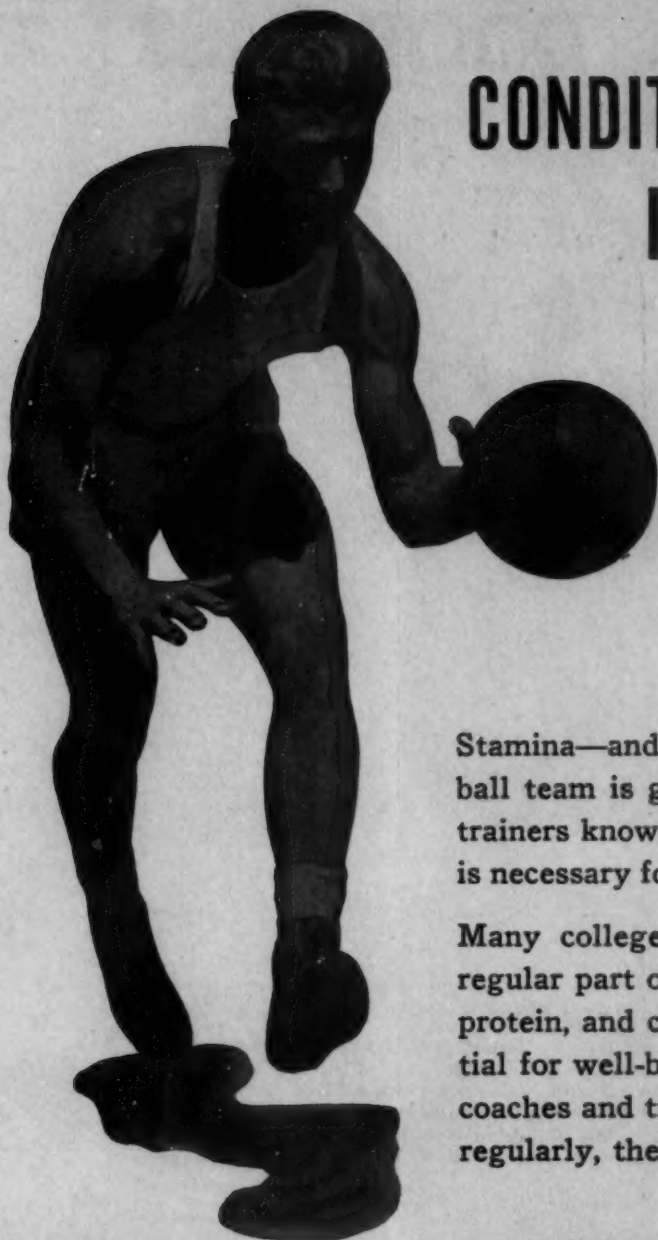
1. In cold weather, hair should be carefully dried before going out of doors from the shower room.
2. Drink out of hygienic fountain or paper cups.
3. Don't remove sweat clothes prematurely during the warm-up drills. Wear mercerized cotton garments to absorb and evaporate perspiration faster.
4. Do not cool off while unprotected. Upon returning to the bench after being substituted for, slip on the warm-up-suit top piece. A towel may also be wrapped around the neck.
5. Dress warmly. Stay out of drafts, especially when hot or perspiring.
6. Get at least eight hours of sleep every night.
7. Drink plenty of water, eat easily digested foods and make sure of regular elimination.
8. Watch body temperature.
9. Don't wipe off perspiration with a towel that has been thrown along the floor or has been used by other players.
10. Don't practice until exhausted. Fatigue decreases resistance.

RULES FOR WARMING UP

1. The object of the warm-up period is to loosen up the muscles and get them ready for action, to prepare the expenditure of waste properties and the recuperation of ability, so that the proper level of intake and outgo is achieved before the game starts.
2. Free-swinging movements such as throwing the arms about in big circles, running in place and kicking the knees up start a greater blood supply flowing, thus bringing more oxygen and nutriment to the muscles.
3. On entering the gym use a number of different types of warm-up motions, allowing about a minute for each. Imitate some of the movements used in the game.
4. Prepare for the game by practicing the actual skills. Make every minute count, in the 15 or 20 minutes before the opening whistle. Practice every type of shot—long, short, foul, layup and pivot. Good practice drills should embody cutting, passing and shooting.
5. Don't be too active. Save all energy for the game.
6. Keep sweat clothes on until just before game time. The top piece may be removed while practicing foul shots.

COACHES

Girls are
than men.
condition
men's. C
drinking K
tried amor
believe res



CONDITION COUNTS PLENTY IN BASKETBALL!

Many College Squads Now
DRINK KNOX GELATINE
As Part of Training to Help
Keep Up Condition

Stamina—and then more stamina—is a “must” if a basketball team is going to win consistently. And coaches and trainers know a quantity and variety of protein in the diet is necessary for maintaining condition.

Many college squads are *drinking* Knox Gelatine as a regular part of their training. Knox is a pure, wholesome protein, and contains seven of the ten protein parts essential for well-being. While Knox cannot make a team win, coaches and trainers report that when athletes drink Knox regularly, they do seem to keep in better condition.

COACHES SAY GIRLS BENEFIT, TOO

Girls are less ruggedly constituted than men, and consequently, their condition is even more important than men's. Coaches have reported that drinking Knox Gelatine has also been tried among girls' teams, and they believe results were beneficial.



HAVE YOUR TEAMS TRY KNOX

Try having your teams drink Knox Gelatine! It's easy to serve, on the training table or in locker rooms. Write today for complete details and directions for the Knox Gelatine Drink. Knox Gelatine, Dept. 81, Johnstown, N. Y.



KNOX GELATINE

Is Pure, Unflavored Gelatine . . . All Protein, No Sugar

LAST-1

If there is any one sport it is basketball. The one who can take it—the fellow who has all he has in him—

He may be big or he may be small, but he has one big thing that he has: he has the will to win harder and think clear.

Naturally, a player who is in the best of condition can take it to the opponents. When he cuts, his legs are in double figures.

The trouble with cutting is that it takes so much out of a player that he has to have a quick start to get his energy and his legs driving again.

That's why the player who is in the best of condition is the most vital factor in the game. Any extra aid that gives him the extra spurts that extra spurts may

Copyright, 1941, Chas. B.



LAST-MINUTE STAMINA OFTEN WINS!

If there is any one sport that places a premium on endurance, it is basketball. The valuable team man is the fellow who can take it—the fellow who can go the full game and give all he has in him—and then go ahead and give a little more.

He may be big or he may be small. But endurance is the one big thing that puts him on top in his ability to play harder and think clearer and faster.

Naturally, a player with superior reaction time is a menace to the opponents. If he can pick up a step on his guard when he cuts, his individual scoring column will likely hit double figures.

The trouble with cutting or fast breaking, however, is that it takes so much out of a player. Practically every cut involves a quick start and a sharp burst of speed. This consumes energy and lots of it. The player who keeps continually driving is in danger of wearing himself out.

That's why the problem of building up stamina is perhaps the most vital factor to the coach in the conditioning process. Any extra aid the player can get in the way of endurance is of incalculable value. For in critical moments of a game, that extra spurt may determine the game's course.

Copyright, 1941, Chas. B. Knox Gelatine Co., Inc., Johnstown, N. Y.

ATHLETES' DIETETIC REGIMEN

Coaches know that exercises of speed produce a very definite increase in both nervous and muscular expenditure. Consequently, the diet for the athlete must contain foods which will be readily digestible, and will not cause an excessive gain in weight.

Many coaches have tried augmenting the regular training-table diet with Knox Gelatine, taken as a drink. Knox is a pure, wholesome protein . . . contains no sugar. It is easy to digest. It contains seven of the ten essential protein parts. Drinking Knox is a simple way to supplement proteins from other sources in the diet.

It should be remembered that Knox Gelatine as a drink is not a stimulant or a quick "pick-up." It is a systematic aid in helping to keep up the athlete's condition. Good conditioning helps fight common colds and other disabilities that offset the best trainer's most carefully laid plans.

Plain, unflavored Knox Gelatine should be specified because it has been successfully tried in many college training programs.

FRANK J. KAVANAGH, Trainer

Better
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THE COACH'S BOOK LIST

BASKETBALL

- Better Basketball*, by Forrest C. Allen, \$4.
100 Drills for Teaching Basketball Fundamentals, by Blair Gullion, \$1.
Basketball Offensive Fund. Analyzed, by Gullion, \$1.
Winning Basketball, by Nat Holman, \$2.
Basketball, by Dr. H. C. Carlson, \$2.
Basketball Methods, by John W. Bunn, \$3.25.
Modern Basketball, by Jourdet and Hashagen, \$2.25.
Basketball for Girls, by Meissner and Meyers, \$1.
Tips on Girls' Basketball, by Ada Kennard, \$2.
Basketball Play Scrapbook, by Ray Welsh, \$2.
Better Basketball, by Barbour & Sarra, \$1.50.

Sayger Illustrated Series

- Pittsburgh's Offense*, by H. C. Carlson, \$1.
Indiana's Offense, by Everett Dean, \$1.
Ohio State Offense, by Harold Olsen, \$1.
Butler Offense, by "Tony" Hinkle, \$1.50.
Basketball's Assistant Coach, by Hinkle and Sayger, \$1.

TRACK AND FIELD

- Track and Field Athletics*, by Tuttle and Bresnahan, \$3.25.
Championship Technique in Track and Field, by Dean Cromwell and Al Wesson, \$3.
The Olympic Coach, by Lawson Robertson, \$1.
Track and Field, by Charlie Paddock, \$2.50.
Track, by Ray Conger, \$1.
All American Track and Field Scorebook, \$1.25.

FOOTBALL

- The Modern T Formation*, by Shaughnessy-Jones-Halas, \$3.
Manual for Functional Football, by John DaGrosa, \$5.
Functional Football, by John DaGrosa, \$3.
Analysis of T Formation, by Hall and DaGrosa, \$2.
Football Line Play, by B. F. Oakes, \$3.
Practical Football, by Crisler and Wieman, \$3.
Kicking the American Football, by LeRoy Mills, \$2.
Winning Football, by Bernie Bierman, \$2.50.
Football, by Glenn Killinger, \$1.
The Five-Man Defensive Line, by John DaGrosa, 50c.
Football Thru the Years, by Dean Hill, \$2.50.
Zuppke of Illinois, by Red Grange, \$2.

Sayger Illustrated Series

- Ohio State's Offense*, by Francis Schmidt, \$1.50.
Minnesota's Offense, by Bernie Bierman, \$1.
Michigan's Offense, by Harry Kipke, \$1.50.
Purdue's Offense, by Noble Kizer, \$1.50.
Rainy Day Coach, by Anderson, Kizer and Sayger, \$1.50.

SIX-MAN FOOTBALL

- Six-Man Football*, by Stephen Epler, \$3.
Six-Man Football, by J. D. Alexander, \$1.
Practical Six-Man Football, by Kurt W. Lenser, \$1.25.
Six-Man Football, by Ray O. Duncan, \$1.
How to Play Six-Man Football, by Barbour and Sarra, \$1.50.

GIRLS' BASKETBALL WALL CHARTS

Every girls' basketball coach and gymnasium instructor should have them. The fundamental techniques of the girls' game on three 14-inch by 22-inch posters of extra heavy cardboard. Passing, shooting and individual tactics—all graphically illustrated in easy-to-follow form by the use of large, clear motion picture stills. Each wall chart contains three techniques on different phases of the game. Invaluable as a teaching device placed where the girls can always see them. Price, three for \$1, postpaid. Shipped in rigid corrugated envelope.

OTHER SPORTS

- Baseball Coaching Aids*, by H. S. DeGroat, \$2.75.
Major League Baseball, by Ethan Allen, \$3.
Baseball, by Jack Coombs, \$2.75.
Baseball, by Dan Jessee, \$1.
Budge on Tennis, by J. Donald Budge, \$2.
Tennis, by Helen Jacobs, \$1.
Tennis, by E. and B. Bruce, \$2.50.
Better Badminton, by Jackson and Swan, \$1.
How to Play Golf, by Ben Thomson, \$1.75.
Golf, by Patty Berg, \$1.
Sports as Taught and Played at West Point, by 17 Coaches, \$2.
The Coaching of Soccer, by Hubert Coyer, \$2.
Primer of Figure Skating, by Maribel Vinson, \$2.75.
Wings on My Feet, by Sonja Henie, \$2.
The Tumbling Manual, by LaPorte and Renner, \$3.
The Teaching of Stunts and Tumbling, by B. and D. Cotteral, \$3.
Hockey, by Vaughan and York, \$3.50.
Safety in Athletics, by Lloyd, Deaver and Eastwood, \$3.25.
Athletics in Educat'n, by Williams and Hughes, \$3.50.
Active Games and Contests, by Mason and Mitchell, \$3.
Sports for Women, by Dorothy Sumption, \$2.50.
Wrestling, by E. C. Gallagher, \$1.
Wrestling (Intercollegiate and Olympic), by Henry A. Stone, \$3.
Wrestling Wall Chart, by Hugo Otopalik, \$1.50.
The Complete Swimmer, by Ulen and Larcom, \$3.
American Red Cross Series: First Aid; Water Safety; Swimming and Diving, 60c each.
Swimming, by Matt Mann, \$2.
Swimming, by Victor E. Lawson, \$1.50.
Modern Methods in Archery, by Reichart and Keasey, \$1.
The New Trainers Bible, by Dr. S. E. Bilik, \$2.50.
Physical Education Class and Record Book, by Hugo Fischer, 75c.

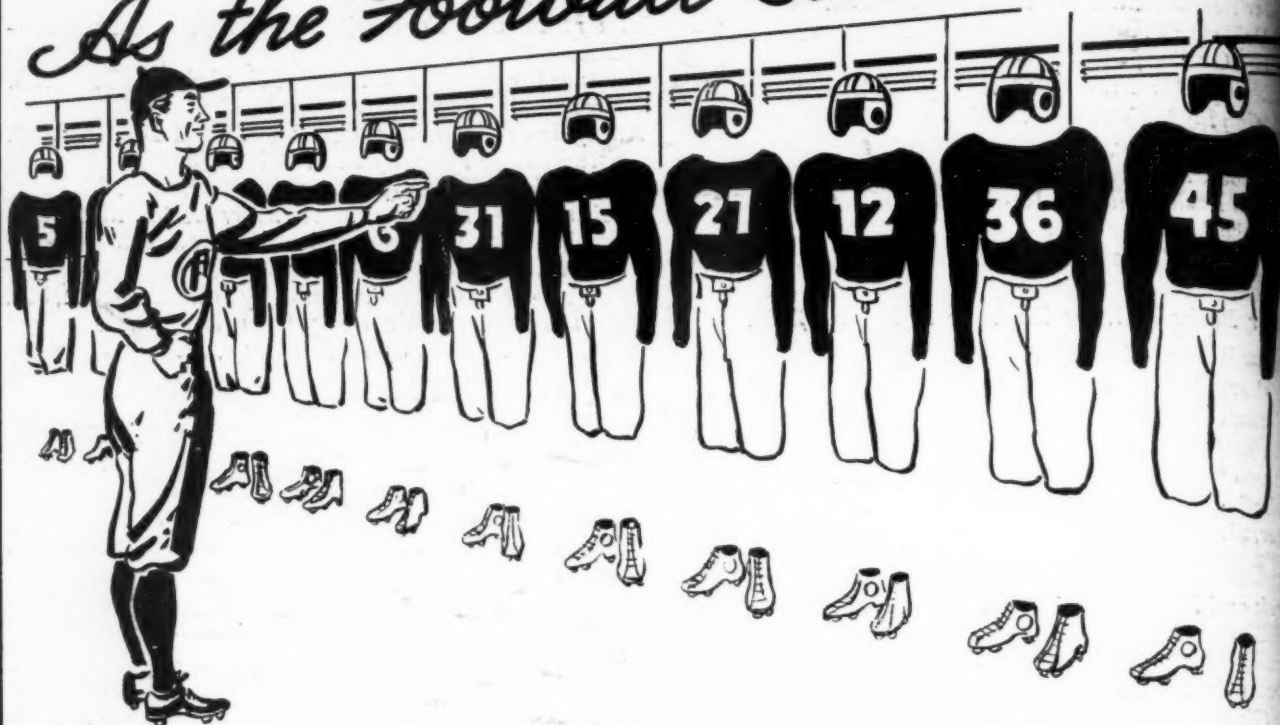
All books sent postpaid upon receipt of check, money order, or school order form.

SCHOLASTIC COACH BOOKSHOP

220 EAST 42 STREET

NEW YORK, N. Y.

As the Football Season ends



**"YOUR NEXT TRIP WILL BE—TO REPORT TO
THE IVORY SYSTEM FOR RECONDITIONING
AND SAFE STORAGE UNTIL NEXT FALL."**

Never before has it been so vitally important that you give careful thought to this question:—Who shall take your valuable Athletic Equipment away from your own Stock Rooms for RECONDITIONING? With all of the uncertainty which exists in these troublesome times, it is well for you to place your faith and trust in the Long-Established, Dependable IVORY SYSTEM.

In the World of Sports

Ivory System

RECONDITIONERS
OF ATHLETIC
EQUIPMENT

PEABODY, MASSACHUSETTS